China Startup Ecosystem Report: AI

Executive Summary

- China is one of the leading markets in the field of artificial intelligence. The Chinese artificial intelligence market had a market size of CNY 205.8 billion in 2021 and may reach CNY 500 billion by 2025. Chinese startups play a relevant role in the development of China's AI market.

- A total of 611 Chinese AI startups that undoubtedly use AI technology as a critical element for their products or services were selected for the report's in-depth analysis. These startups were able to raise more than CNY 260 billion in external capital.

- Most of the relevant AI startups were founded in 2016-2018, with the absolute peak in 2017 with 97 new relevant AI startups.

- Most relevant AI startups were founded in Beijing and the Guangdong province. AI startups from Beijing (CNY 131 billion) have raised more than three times as much capital as those from Shanghai (CNY 50 billion).

- Different AI industry clusters and zones have formed in nearly all Tier 1 and New Tier 1 cities.

- AI startup investment rounds peaked in 2021 when more than CNY 81 billion was invested in Chinese AI startups. In 2022, only CNY 44 billion (-46% YoY) was invested in AI startups, indicating a significant decline and deterioration in the investment climate.

- The most capital (CNY 70 billion) was raised by AI startups founded in 2014. At the same time, these companies also have, by far, the most employees.

- The selected AI startups were divided into 23 different industries. Most AI startups can be classified in the Technology, Healthcare & Life Science, Consumer Goods & Retail, and Finance & Insurance industries.

- The funding amount of startups differ significantly between industries. For example, it was found that companies with a focus on AI Chips and Robotics received above-average amounts of investment. The same was true for Supply Chain & Logistics, as six companies received more than CNY 12 billion in funding.

- The AI technologies used by the startups were also analyzed, where it was found that the most commonly used AI technologies could be described as "Deep Learning" and "Computer Vision".

- A total of 1,720 startup investors invested in the 1,855 investment rounds of the 611 AI startups. Sequoia China was the top investor, participating in 40 investment rounds. In total, 293 investors invested in at least three AI startup investment rounds.

- The overall trend indicates that investment in AI startups peaked in 2021 and is now slowly declining. However, thanks to strong government support and large potential market size, investment in startups remains relatively stable.

Methodology

The collection of all relevant AI startups in China was realized by a CIMK-specific company identification and evaluation process. The process includes the structured capture of companies from company databases, the merging of company information from different data sources, as well as the semi-automated analysis and categorization of startups. Finally, all data points are translated into English. These four key steps are explained below.

Company Identification

The startups are mainly collected via the Chinese company registry (国家企业信用信息公示系统/ National Enterprise Credit Information Publicity System) and private company databases (Tianyancha.com or Qcc.com), which mirror the official company registry.

To identify the relevant artificial intelligence startups in China, artificial intelligence was searched both individually and together with 24 industry terms (e.g., Healthcare & Life Science, Finance & Insurance, Automotive, Consumer Goods & Retail). These search terms have been matched with the Chinese companies' company descriptions and business items. In addition, Big Data analysis techniques are used to filter companies based on the date of establishment, whether these companies are still active, and whether these companies have received a round of financing. This research focuses only on companies founded between 2010 and 2022 that have received at least one funding round. The minimum of one funding round ensures that these startups have some relevance as they managed to attract external funding. A total of 2,435 unique startups were automatically identified.

Obtaining Company Data for Each Startup

In order to obtain all decision-relevant information about the startups, data from different platforms must be collected in a structured manner. A large part of the data is collected from the company databases, but further data is captured from other data sources, e.g., the business professional business network MaiMai (comparable with LinkedIn) or the company websites.

The official company names are always used as the unique search term. The collected information includes Chinese name, English name, website, address, province, city, date of foundation, number of employees, number of funding round, type of last funding round, aggregated amount of funding rounds, investors, company description, startup founder, and startup logo.

Startup Analysis and Categorization

After collecting detailed information about all startups, the next step is to check whether a startup is relevant and meets the requirements of an AI startup. The prerequisite is that the company works on products and services significantly based on technology from the field of artificial intelligence. The core product can be an artificial intelligence algorithm or the application of artificial intelligence in another product or service. If a startup is identified as relevant, it is also classified into an industry and the type of AI technology. This task was undertaken by two Chinese-speaking AI experts. The industries are Aerospace, Agriculture, Automotive, Chips, Construction, Consumer Goods & Retail, Customer Service, Education, Energy, Finance & Insurance, Greentech, Healthcare & Life Science, Hospitality, Human Resources, Legal, Manufacturing, Media & Entertainment, Retail & Consumer Goods, Robotics, Security, Smart City, Supply Chain & Logistics, Technology. The Technology industry includes all startups that offer artificial

intelligence for different customer groups and industries. In addition, the type of AI technology has also been categorized into different areas. The AI technology areas are Cognitive AI, Computer Speech, Computer Vision, Data Mining, Deep Learning, Expert Systems, Machine Learning, NLP Conversational AI, and Optimization. If a startup uses or offers multiple AI technologies or the internal technology can not be clearly identified, the AI technology area is referred to as "Various".

A detailed explanation of the different types of AI applications can be found in the following chapter. A total of 611 relevant startups were successfully captured and categorized.

Information Translation

The data acquisition and data analysis were carried out entirely in Chinese. All information is being translated into English. For this purpose, a CIMK-specific translation module based on the Microsoft Azure Cloud Translation Model was used. Partially, own translation modules were built and applied.

China Startup Ecosystem Output

This report provides a comprehensive overview of the Chinese AI startup ecosystem. This report provides a good insight into the Chinese AI space's current developments, trends, and investment activities. To get more detailed information about the startups, the additional Excel document can be used in which detailed information for each startup and filter options can be found. Finally, there is a one-page overview chart of the startup ecosystem, on which all startups can be seen at a glance.

Report Structure

In the following chapter, a brief introduction to the field of artificial intelligence in China and AI technology applications can be seen. Next, in the industry capital, a high-level overview of Chinese AI startups' developments and capital flows is provided. The following capital provides an industry-level-based AI startup applications overview. This also includes the introduction of representative startups in the respective industries. In the end, there is a short introduction to the innovative techniques of CIMK.

Introduction

China is one of the leading markets in the field of artificial intelligence. In 2021 alone, the Chinese artificial intelligence market is worth CNY 205.8 billion, which corresponds to a growth of 30%. (1) It is assumed that the market size in 2025 can already amount to 500 billion RMB. (1)

Artificial intelligence (AI) is the ability of a machine or computer system to perform tasks that typically require human intelligence, such as learning, problem-solving, and decision-making.

In addition to the large technology companies such as Baidu, Alibaba, or Tencent, Chinese startups are driving strong development in the field of AI. Many of these startups apply existing artificial intelligence concepts and solutions to different application areas in various industries.

The penetration of AI technology in different industries is very diverse and cannot be generalized. The pandemic in recent years has created new and much-needed opportunities and a testing ground for the application of AI in the areas of medical treatment, urban management, and secure production.

The AI field is also strongly promoted and supported by the Chinese government. In the 14th Five-Year Plan from 2021, AI is listed as the top priority in pioneering science and technology, which will surely help China's AI industry grow further and attract investments. At the same time, almost all Tier 1 and Tier 2 cities are seeing the emergence of AI-specific industry clusters and industrial parks, in which AI startups are specifically financed and supported. The support of the Chinese government is considered secure for this technology in the future.

This report provides an industry-based overview of the Chinese AI startup development. Startups from very different industries were included, whose business models all rely, to a large extent, on AI technology. Using this broad definition approach, it can be ensured that the most relevant startups in terms of funding, technology, and employees are covered, whereas the list might not be exhaustive for all industry use cases.

The following chart gives an overview of the different AI technologies that were used to cluster and track the technology usage of these startups.

Chart 1: CIMK AI Classification

Source: (1) Intel, Deloitte, and SAIIA; China Growing AI Companies 2021

Industry Overview

A total of 611 AI startups were selected, which undoubtedly used AI technology as a central element for their products or services. In total, these AI startups have raised more than CNY 260 billion in external capital. AI startups peaked in 2016-2018, with the absolute peak in 2017 with 97 new AI startups that received at least one external investment. When looking at the year in which the companies were founded and how much capital they raised, it can be seen that AI Startups (CNY 70 billion) from 2014 raised by far the most funds. At the same time, there are only 16 new AI startups with investments founded in 2022. This low number can be mainly explained by the fact that, on average, it takes two years (exactly 736 days) for Chinese AI startups to receive their first round of funding. Accordingly, there may be significantly more AI Startups from 2022 that are performing well and will be able to raise external funding rounds in the next few years. Nevertheless, it must also be mentioned that the macroeconomic headwinds in China in 2022 should have resulted in fewer entrepreneurs deciding to start an AI Startup and VC investors investing more strictly compared to the previous two years. The number of founded AI startups per year can be seen in chart 2.

Looking at where the Chinese AI startups were founded, it can be seen that most AI startups were founded in Beijing and the Guangdong Province. Besides, Zhenjiang, Shanghai, and Jiangsu Province are also AI hubs in China. It can be seen that the AI startups and AI research are concentrated in a limited number of larger cities such as Beijing, Shenzhen, Guangzhou, Shanghai, Guangzhou, and Nanjing, and clusters of talent, investment, and networks are formed there. One reason for this is that AI startups are increasingly founded by former executives of existing AI-driven companies that are headquartered in one of the cities mentioned above and then settle in one of the advertised AI industrial parks. Many provinces like Gansu or Hebei have virtually no exposure to AI startups. This distribution can be seen in chart 3.

The AI startups from Beijing (CNY 169 billion) have raised more than three times more capital than the AI startups from the second most successful province Shanghai (CNY 50 billion). Even Guangdong Province, which has almost the same number of AI startups as Beijing, raised only a fraction of the amount of money (CNY 37 billion).

Looking at the average number of employees of AI startups from different founding years, the AI startups from 2014 are the most successful ones, with, on average, more than 300 employees. The companies from 2020 also stand out with an average of 67 employees and significantly more employees compared to the previous years. These figures are based on the number of insured employees on the 31st of December 2021.

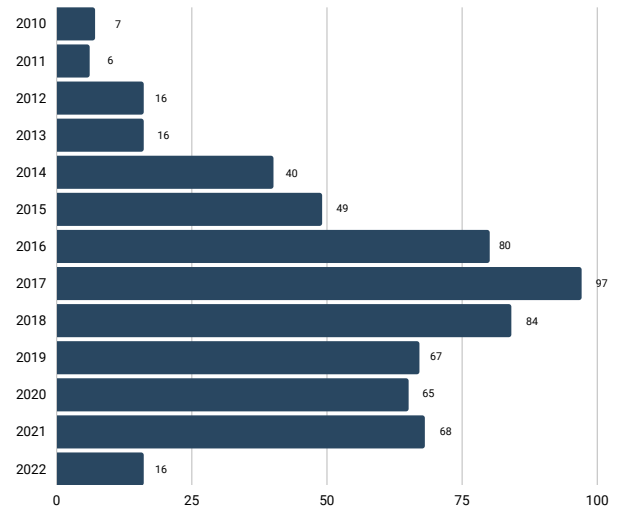*Chart 2: AI Startup Foundation per Year (n=611)*

Year	Count
2010	7
2011	6
2012	16
2013	16
2014	40
2015	49
2016	80
2017	97
2018	84
2019	67
2020	65
2021	68
2022	16

Chart 3: AI Startups per Province (n=611)

Province	Count
Beijing Province	146
Guangdong Province	139
Zhejiang Province	84
Shanghai Province	80
Jiangsu Province	65
Shandong Province	15
Anhui Province	15
Sichuan Province	12
Tianjin Province	12
Fujian Province	10
Hubei Province	7
Hunan Province	6
Chongqing Province	3
Hainan Province	3
Shaanxi Province	3
Guangxi Province	2
Jilin Province	2
Henan Province	2
Jiangxi Province	1
Hebei Province	1
Shanxi Province	1
Guizhou Province	1
Liaoning Province	1
Inner Mongolia Province	1
Xinjiang Province	1
Jiangxi Province	1
Gansu Province	1
Ningxia Province	1
Xinjiang Uygur A. R.	1

Chart 4: Number of Employees per Year of Foundation (n=611)

Year	Count
2010	64
2011	201
2012	93
2013	48
2014	307
2015	95
2016	74
2017	54
2018	43
2019	39
2020	67
2021	6
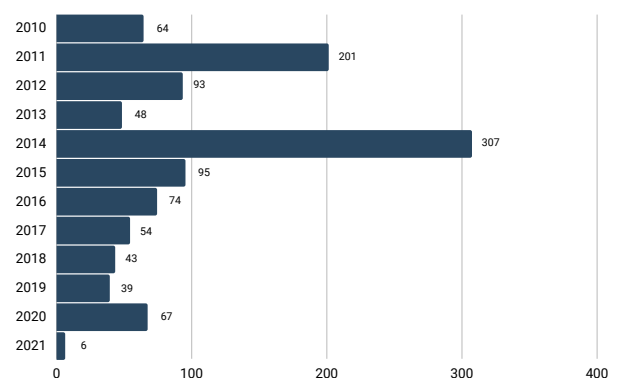
AI Startup Categories

The identified AI startups were sorted into 23 different startup industries. This classification was done manually based on the company descriptions, business items, and the products and services offered by the startups. It can be seen that most startups (180) can be classified into the general category of Technology. This means that these AI startups have developed a technological product or service that is not limited to a specific application scenario or industry. For example, a startup has developed a cognitive AI for a chatbot, which can be used in the Finance & Insurance, e-Commerce, and Legal industry. In addition, Healthcare & Life Science is the industry with the most AI startups (91). There are many use cases in which artificial intelligence significantly supports researchers and doctors in medicine development, disease detection, and medical intervention support. AI has the potential to be a significant support for researchers and doctors. Healthcare & Life Science is a great application scenario for artificial intelligence as the biological complexity of organisms and humans results in the situation that many things cannot be solved statistically, but neural networks can represent this complexity approximatively quite well. However, there are also a high number of AI startups that can be classified in the Finance & Insurance, Automotive, Manufacturing, or Smart City industries. In Finance & Insurance, it is about using artificial intelligence to optimize products and models on the one hand and to improve the customer experience by using cognitive AI on the other hand. In Manufacturing, it's about using AI to improve and monitor processes so that maintenance and downtime can be reduced. An overview of the number of startups in the different industries can be seen in chart 5.

Looking at how much money has been invested in the different industry AI applications, it can be seen that the most capital continues to be invested in AI startups from the Technology, Healthcare & Life Science, and Automotive sectors. However, it can be seen that companies with a focus on AI chips and robotics have received high amounts of investment. Another outstanding example is that six startups in the Supply Chain & Logistics sector have raised more than CNY 12 billion (Avg. CNY 2 billion). The Finance & Insurance sector stands out negatively, with 34 startups raising a total of just under CNY 4.5 billion (Avg. CNY 132 million).

For the AI startups inside of this report, in around 42% of their investment rounds, the investment amount is not disclosed and, therefore, cannot be used in the aggregation at the industry level. Consequently, it can only be referred to as a minimum investment amount per industry. The actual amounts should be significantly larger. An overview of the AI startup investment volume in the different industries can be seen in chart 5.

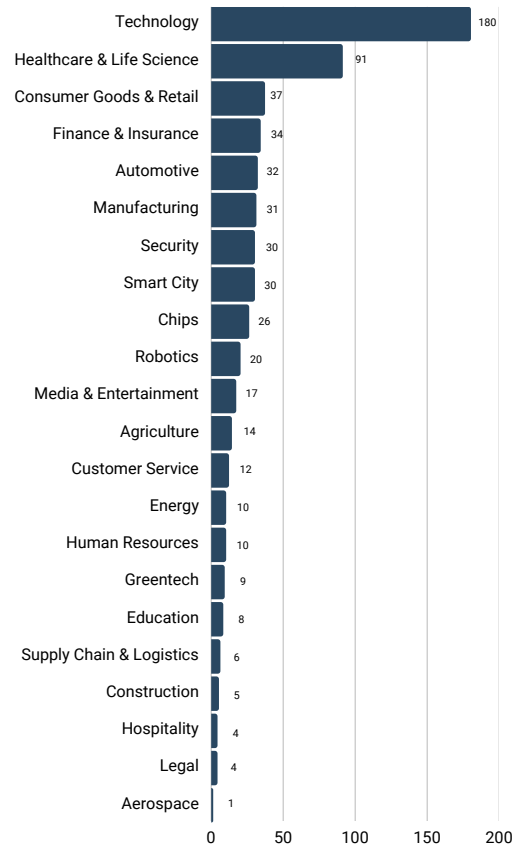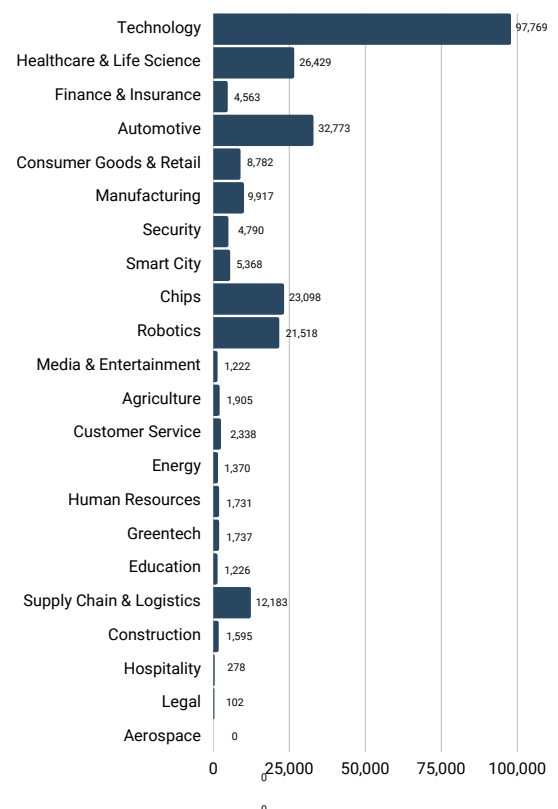*Chart 5: AI Startups per Industry (n=611)*

Industry	Count
Technology	180
Healthcare & Life Science	91
Consumer Goods & Retail	37
Finance & Insurance	34
Automotive	32
Manufacturing	31
Security	30
Smart City	30
Chips	26
Robotics	20
Media & Entertainment	17
Agriculture	14
Customer Service	12
Energy	10
Human Resources	10
Greentech	9
Education	8
Supply Chain & Logistics	6
Construction	5
Hospitality	4
Legal	4
Aerospace	1

Chart 6: AI Startups Investment per Industry (in Million CNY)

Industry	Investment
Technology	97,769
Healthcare & Life Science	26,429
Finance & Insurance	4,563
Automotive	32,773
Consumer Goods & Retail	8,782
Manufacturing	9,917
Security	4,790
Smart City	5,368
Chips	23,098
Robotics	21,518
Media & Entertainment	1,222
Agriculture	1,905
Customer Service	2,338
Energy	1,370
Human Resources	1,731
Greentech	1,737
Education	1,226
Supply Chain & Logistics	12,183
Construction	1,595
Hospitality	278
Legal	102
Aerospace	0

AI Startup Investment Rounds

A total of 1,855 funding rounds were recorded for the 611 AI startups. The majority of the investment rounds took place in 2018-2022. The number of AI startup investment rounds increased continuously until its peak in 2021 (405 rounds). In 2022, investment rounds dropped by 23% to only 312 rounds, which is still above the previous level of 2020 or 2019. A detailed insight into the development of the number of investment rounds of AI startups is given in chart 7.

Looking at the investment amount in CNY per year, it can be seen that it has continuously increased over the years. The peak was again in 2021 when a total of more than 81 billion CNY was invested in Chinese AI startups. In 2022, only 44 billion CNY (-46% YoY) were invested in AI startups, which indicates a significant decline and a deterioration of the investment climate. In absolute terms, nevertheless, significantly more was still raised than in earlier years. The investment volume per year can be seen in detail in chart 8.

In a follow-up analysis, it was checked how often different investment round types occurred. In the early-stage investment field, there were 370 Angel Rounds, 54 Seed Rounds, 230 Pre-A Rounds, and 494 A Rounds. One reason why the number of seed rounds is lower than the number of A Rounds is that small investment rounds are often signed internally without notarization. In the later stage investment field, it can be seen that of the AI startups, a total of 137 received a C Round, 44 received a D Round, and 6 received an E Round. In addition, there were also 97 strategic investments, which shows that many established companies are interested in early strategic cooperation with AI startups to benefit from their technology and growth. Looking at how the number of investment round types has evolved over time, it can be seen that all AI startups received nearly no investment rounds before 2015. On top of that, late-stage investments didn't really take off until 2018 and didn't pick up steam until 2020. The number of investment round types per year can be seen in chart 9.

The general development indicates that investments in AI startups had their peak in 2021 and are now slowly declining. However, the strong government support and the large potential market size keep the startup investment relatively stable.

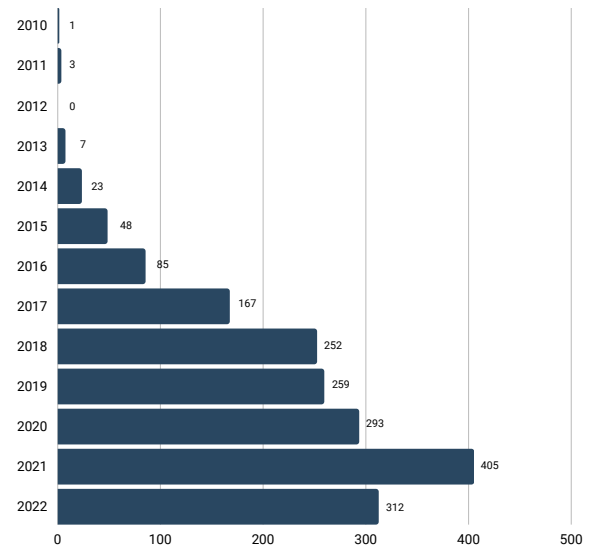*Chart 7: AI Startup Investment Rounds per Year (n=1,855)*

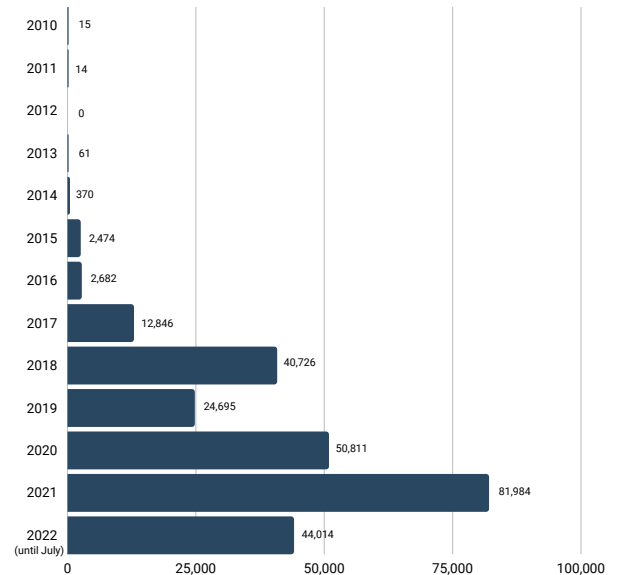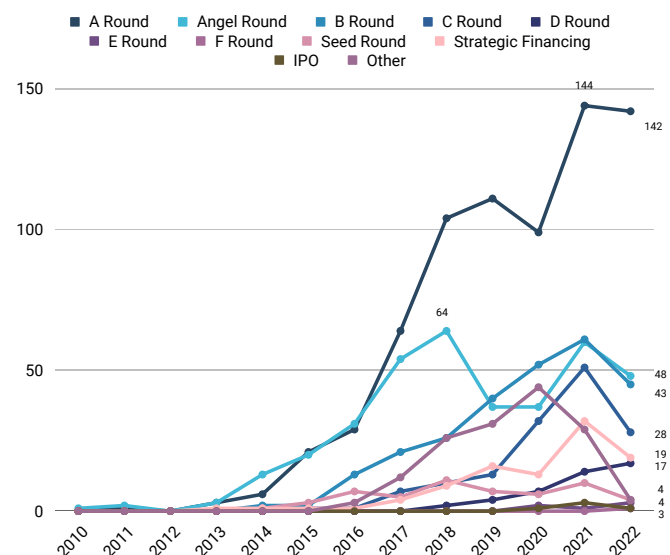*Chart 8: AI Startup Investment Amount per Year (in Million CNY)*

Chart 9: Funding Round Type Development over Time

Looking at what kind of funding round the 611 AI startups had last, it can be seen that a large part of them only made it to the Angel Round (103) or the A Round (224). This shows that in recent years there has been a lot of capital for the early-stage financing of AI startups, but only a limited number of companies really manage to establish themselves in the longer term. An overview of the last funding round from all AI startups can be seen in chart 10.

Most startups have one to three successful funding rounds. Only just under 30% of the surveyed AI startups have received more than three investment rounds which can be seen in chart 11.

With regard to the technology used by AI startups, an exact classification is associated with some accuracy problems. Most of the startups use several AI-related technologies or combine different approaches. It should also be mentioned that this classification is mostly made at the company level and not at an individual product level. The most common singularly used AI technologies were "Deep Learning" and "Computer Vision". Deep Learning is the use of neural networks that enable companies to build a model that adjusts itself to optimize parameters. Computer Vision is the use of AI to identify objects in pictures or videos. Use cases for this AI startup technology are the identification of diseases in medicine or the crossing of red traffic lights in the field of smart cities. A distribution of AI technology classification can be seen in chart 12.

In regard to the financially largest investment rounds, it can be seen that some investment rounds have amounted to more than 5 or even 10 million CNY per round. These are always later-stage rounds or even IPOs. All of these large investment rounds occurred in the period 2018-2022. These startups are now established companies in various industries, and all use AI technology as the core of their business model. The following table shows the largest recorded investment rounds of the 611 AI startups.

Chart 10: Last Funding Round of Startup (n=611)
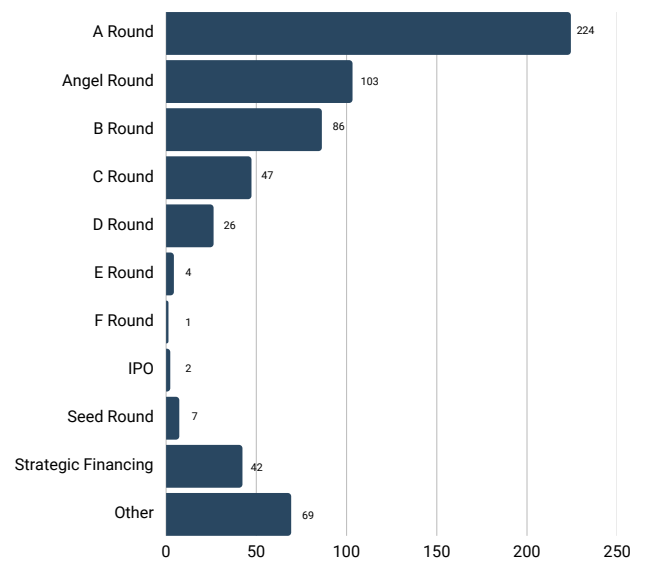
Chart 11: Number of Funding Rounds by Startups
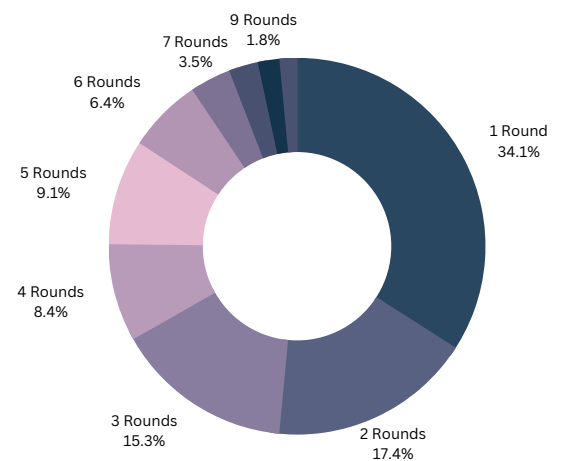
Chart 12: Ratio of Different AI Technology from the Startup

Table 1: Largest Funding Round of AI Startups in China

Company Name	Round Date	Funding Amount (CNY)	Round Type
Beijing SenseTime Technology Co. Ltd	2021-01-27	13.680.000.000,00	IPO
Jiji Auto Technology Co.	2020-11-26	10.000.000.000,00	Strategic Financing
Shanghai Fei Xi Robotics Technology Co.	2022-06-29	6.840.000.000,00	B Round
Beijing SenseTime Technology Co. Ltd	2018-09-10	6.840.000.000,00	D Round
Hangzhou Zhiyi Technology Co.	2022-04-06	6.840.000.000,00	D Round
Ubtech Robotics Corp	2018-05-03	5.608.800.000,00	C Round
Beijing Megvii Technology Limited	2019-05-08	5.130.000.000,00	D Round
Beijing SenseTime Technology Co. Ltd	2021-12-30	4.885.760.000,00	IPO
Beijing Fourth Paradigm Intelligent Technology	2021-01-22	4.788.000.000,00	D Round
Beijing SenseTime Technology Co. Ltd	2018-05-31	4.240.800.000,00	C Round

Startup Investors Overview

A total of 1,720 investors invested in the 1,855 investment round of 611 AI Startups. Sequoia China is the frontrunner, as they participated in 40 investment rounds. In total, ten companies have invested in more than 20 investment rounds, and 293 investors have invested in at least three investment rounds. This clearly indicates that some investors specialize in AI, and many of them have strong investments theses in this area. The following table gives an overview of the most active investors in the selected AI startups. It was also checked whether an investor is a private or government-related investor.

Table 2: Most Active Investors in Chinese AI Startups

Investment Fund Name (English)	Investment Fund Name (Chinese)	Private or Government Ownership	Number of Investments
Sequoia China	红杉中国	Private	40
Linear capital	线性资本	Private	29
Wuyuan Capital	五源资本	Private	28
Matrix Partners	经纬创投	Private	27
Tencent Investment	腾讯投资	Private	26
GGV Jiyuan Capital	GGV纪源资本	Private	25
IDG Capital	IDG资本	Private	25
High-level venture capital	高瓴创投	Private	25
True Fund	真格基金	Private	21
Legend Capital	联想创投	Private	20
Legend capital	君联资本	Private	19
Xianghe Capital	襄禾资本	Private	19
CICC Capital	中金资本	Government Ownership	18
Lanchi Venture Capital	蓝驰创投	Private	18
Dongfang Fuhai	东方富海	Private	17
Shenzhen Venture Capital	深创投	Government Ownership	17
Source code capital	源码资本	Private	17
Gaorong Capital	高榕资本	Private	17

Category Deep Dive

The following chapter will discuss the different industries in which AI startups are active. Each of the 611 AI startups was classified into one of the following 23 different industries. The following chart gives a general overview of the various industries, which will be analyzed in more detail.

Chart 13: Startup Industry Overview
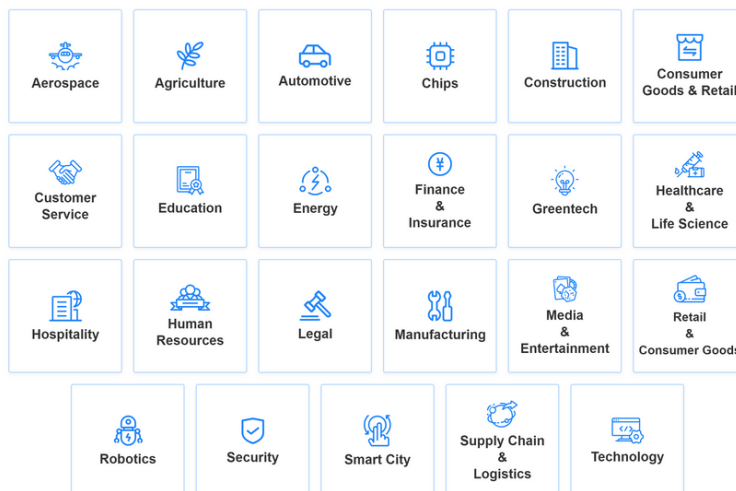
The AI startups are not evenly distributed among the different industries, but there are some industries like Technology, Healthcare & Life Science, or Manufacturing, in which there are more AI startups than average. The following table three gives an overview of the number and investment amount per industry.

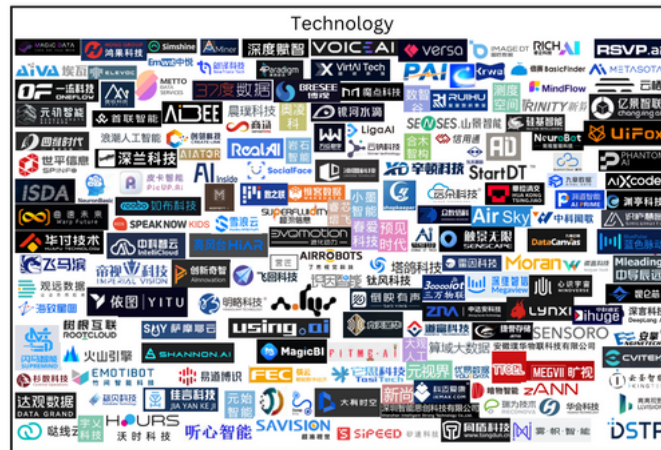*Table 3: Startup Industry Categorization*

Startup Category	Startup per Startup Category	Startup Funding in Million CNY
Technology	180	97,769
Healthcare & Life Science	91	26,429
Finance & Insurance	34	4,563
Automotive	32	32,773
Consumer Goods & Retail	37	8,782
Manufacturing	31	9,917
Security	30	4,790
Smart City	30	5,368
Chips	26	23,098
Robotics	20	21,518
Media & Entertainment	17	1,222
Agriculture	14	1,905
Customer Service	12	2,338
Energy	10	1,370
Human Resources	10	1,731
Greentech	9	1,737
Education	8	1,226
Supply Chain & Logistics	6	12,183
Construction	5	1,595
Hospitality	4	278
Legal	4	102
Aerospace	1	-

For each industry in that chapter, it is introduced how artificial intelligence can be applied to create value in that industry. This assessment is based on the CIMK analyst team's experiences and experts from the different industries who were contacted for this purpose. After that, a graphical overview of all AI startups in the respective industry is presented, and finally, two examples of AI startups are presented.

Technology Industry

The technology segment includes all companies that focus on developing AI products and services, which are then offered to different customer groups from various industries. Often, these are startups that develop AI applications for other companies as AI as a Service (AIaaS).

Chart 14: Industry Overview: Technology

Example Companies:

Name:	Beijing Pengsi Intelligent Technology
Number of Rounds:	5
Last Round:	Equity Financing
Total Funding Amount:	CNY 160,000,000
Description:	The company is an international innovative IoT eco-platform company with a mission to provide "AI as a Service". The company has extensive computer vision technology and continues to lead smart edge innovation to build an AIoT eco-platform. With AI, IoT, and a closed-loop SaaS model, the company offers smart IoT devices, cloud services, and scenario-based AI solutions for various industry segments.

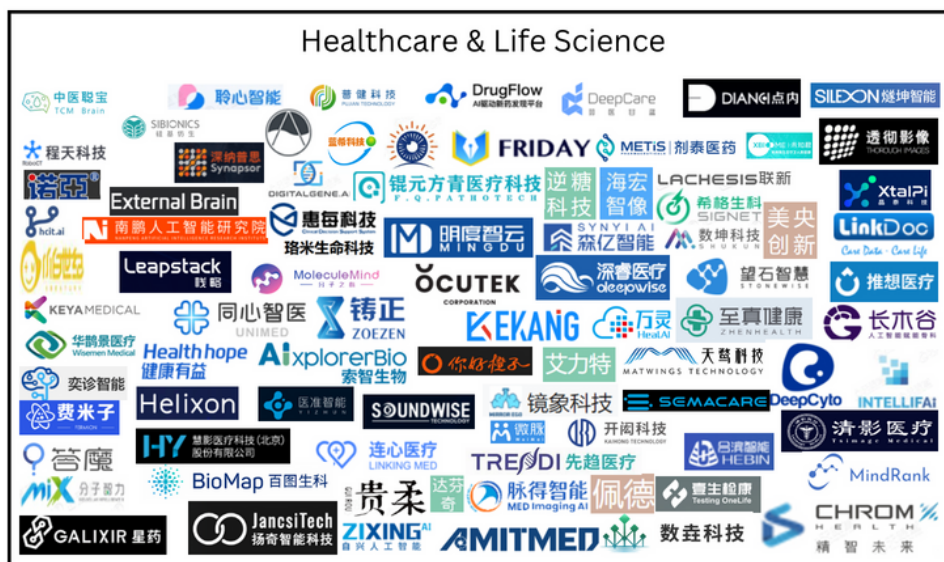|	
Name:	Hangzhou Fangde Intelligent Technology
Number of Rounds:	3
Last Round:	Pre-A Round
Total Funding Amount:	CNY 10,000,000
Description:	The company is an artificial intelligence business company focusing on the research of intelligent assistants. Relying on its technical advantages in artificial intelligence and machine learning, the company designs and develops Internet applications based on artificial intelligence and machine learning such as enterprise/government intelligence, intelligent manufacturing, and smart city, and creates an intelligent business processing and service operation platform for the global business market, as well as an intelligent life assistant for ordinary users.

Healthcare & Life Science Industry

Artificial intelligence (AI) startups have the potential to improve the accuracy and efficiency of medical diagnoses, predict potential health risks, and personalize treatment plans. The use of AI in healthcare and life sciences can be structured as follows:

- Diagnostics: AI algorithms can analyze medical images such as X-rays, CT scans, and MRIs to detect diseases and conditions such as cancer, heart disease, and lung infections.
- Predictive analytics: Using AI, a patient's medical history, genetic information, and other data can be analyzed to predict the risk of developing certain diseases or conditions.
- Personalized medicine: Using AI, large amounts of data can be analyzed to identify patterns and make predictions about how a patient will respond to different treatment options

- Clinical trials: AI can be used to identify patients most likely to benefit from a particular treatment, to analyze patient-specific data to optimize clinical trial design.
- Drug discovery and development: AI can be used to analyze large amounts of data to identify potential drug targets, predict a drug's interactions with the human body, and identify potential side effects.
- Clinical decision support: AI can be used to integrate medical guidelines, patient-specific information, and real-time monitoring data to provide actionable recommendations for patient care.
- Remote monitoring: With the help of AI, patients can be monitored remotely, using data from wearable devices and other sensors to detect early signs of disease or changes in a patient's condition.

Chart 15: Industry Overview: Healthcare & Life Science

Example Companies:

Name:	Inverse Sugar Technology (Guangzhou).
Number of Rounds:	1
Last Round:	Strategic Financing
Total Funding Amount:	CNY 200,000,000
Description:	The company focuses on cell nutrition therapy and uses the Internet and AI for in-hospital diagnosis and treatment of metabolic disease reversal digital therapy. Thereby they rely on big data and artificial intelligence to achieve accurate quantification for patients.

Name:	Pulsetech Intelligent Technology (Wuxi).
Number of Rounds:	3
Last Round:	C Round
Total Funding Amount:	Not Disclosed
Description:	It is an innovative technology company focused on artificial intelligence image algorithm research, service integration, and product design. The core technologies are medical image cognition and medical data artificial intelligence analysis to achieve the construction of integrated precision medicine collaborative ecosystem.

Finance & Insurance Industry

Artificial intelligence can be used in the finance and insurance industry to automate repetitive tasks, improve risk management, and provide more personalized products and services. The potential applications can be structured as follows:

- Fraud detection and prevention: AI algorithms can analyze large amounts of data, such as transaction records and customer behavior, to identify patterns and anomalies that could indicate fraud.
- Risk management: AI can be used to analyze data on market conditions, credit ratings, and other factors to assess risk and make predictions about potential losses.
- Investment management: AI can be used to analyze large amounts of data, such as financial statements and news articles, to identify investment opportunities and make trades.

- Customer care: AI-powered chatbots can be used to answer customer queries quickly and accurately.
- Underwriting: AI can be used to analyze data about an applicant's financial history and other factors to assess risk and make decisions about issuing loans or insurance policies.
- Claims processing: AI can be used to analyze claims data and identify patterns that can help detect fraud and, in some cases, automate the claims processing process, making it faster and more efficient.
- Portfolio management: AI algorithms can be used to analyze an investor's portfolio, identify patterns, and optimize trading and investment decisions based on market conditions and other factors.

Chart 16: Industry Overview: Finance & Insurance

Example Companies:

Name:	Rongwei Jinke Financial Services Outsourcing (Beijing).
Number of Rounds:	4
Last Round:	B Round
Total Funding Amount:	CNY 547,200,000
Description:	It is a one-stop high-end financial technology provider that offers intelligent risk control decisions and systematic solutions for licensed financial institutions based on Big Data technology and practical artificial intelligence modeling experience. The company's target audiences include state-owned banks, joint-stock banks, leading city commercial banks, approved consumer funds, leading mutual funds, and other approved financial institutions.

Name:	Zhiyan Technology(Shenzhen)
Number of Rounds:	3
Last Round:	A Round
Total Funding Amount:	CNY 12,000,000
Description:	The company is dedicated to developing an AI intelligence platform and intelligent AI cloud services in finance to support the strategic development of enterprise financial technology. It focuses on the technological breakthroughs of semantic understanding, knowledge graphs, and deep learning through the accumulation of massive dialogue and interaction data, supported by the knowledge graph, to create an international leading customized AI solution for insurance, securities, and banking.

Automotive Industry

Artificial intelligence can improve vehicle performance, increase safety, and enable new forms of mobility. The possibilities of AI in the automotive industry can be structured as follows:

- Autonomous vehicles: AI algorithms can be used to enable vehicles to navigate and drive autonomously without human intervention.
- Advanced driver assistance systems (ADAS): AI-powered ADAS systems can provide features such as lane departure warnings, adaptive cruise control, and automatic emergency braking.

- Predictive maintenance: AI can be used to analyze data from vehicle sensors to predict when maintenance is needed and identify potential problems before they occur.
- Personalization: AI can be used to deliver personalized vehicle experiences, such as personalized climate and entertainment settings based on driver preferences and habits.
- Traffic prediction and optimization: AI can be used to analyze traffic patterns and predict congestion to optimize traffic flow and reduce travel times.
- Connected vehicles: AI can be used to analyze data from connected vehicles to improve traffic flow, reduce congestion, and increase safety.
- Manufacturing: AI can be used to optimize the manufacturing process, including managing inventory, scheduling, and controlling production lines.

Chart 17: Industry Overview: Automotive

Example Companies:

Name:	Beijing Mainline Technology.
Number of Rounds:	6
Last Round:	B Round
Total Funding Amount:	CNY 100,000,000
Description:	The company focuses on the development and application of self-driving L4 technology, mainly for port logistics centers and high-speed lines, to provide self-driving truck technology and transportation services. It develops an intelligent logistics system that covers closed, semi-closed, and urban areas and supports various logistics scenarios such as port hubs, high-speed lines, logistics parks, and urban distribution with self-driving technology.

Name:	Beijing Super Star Future Technology
Number of Rounds:	3
Last Round:	Equity Financing
Total Funding Amount:	CNY 1,110,000,000
Description:	The company aims to provide an autonomous, open, efficient and reliable computing platform solution for the domestic intelligent driving industry. It provides energy-efficient computing solutions for intelligent driving, including AI computing architecture, optimized deployment software, 3D perception solutions with multi-source fusion, and other software and hardware.

Consumer Goods & Retail Industry

Artificial intelligence can improve supply chain management and enable more customized product recommendations. The ways in which AI can be used in the consumer goods and retail industries can be structured as follows.

- Supply chain management: AI can be used to optimize the supply chain by analyzing data on inventory, demand, and logistics to make better decisions about production, distribution, and purchasing.
- Personalization and recommendations: Using AI, customer data, such as purchase history and browsing behavior, can be analyzed to make personalized product recommendations and improve the overall customer experience.
- Marketing and advertising: AI can be used to analyze data on customer behavior, demographics, and preferences to target marketing campaigns and improve the effectiveness of advertising.

- Pricing optimization: AI can be used to analyze data on market conditions, competition, and consumer behavior to optimize pricing and maximize revenue.
- Chatbots and virtual assistants: AI-powered chatbots can be used to respond quickly and accurately to customer inquiries, such as providing product information, tracking orders, and processing returns.
- Inventory management: AI can be used to analyze data on sales, customer demand, and inventory levels to optimize inventory and reduce waste.

Chart 18: Industry Overview: Consumer Goods & Retail

Example Companies:

Name:	Shanghai Brioin Technology Group
Number of Rounds:	6
Last Round:	Pre-C Round
Total Funding Amount:	CNY 112,000,000
Description:	The company provides an innovative business services platform for the consumer goods industry. It is committed to using AI to help consumer goods companies in the digital intelligence process of offline marketing.

Name:	Suzhou Huiwei Software Technology
Number of Rounds:	1
Last Round:	Angel Round
Total Funding Amount:	Not Disclosed
Description:	It is a software technology company that provides AI product identification solutions for the retail industry; the main business includes CRM, ERP, independent software products, industry solutions, and services. They have long been actively engaged in providing information solutions for fruit, fresh food, supermarkets, leisure food, bakery, meat market, wholesale markets, and other food retail enterprises.

Manufacturing Industry

Artificial intelligence can increase efficiency in the manufacturing industry, reducing costs and enabling the development of new products and processes. These are ways to structure the use of AI in the manufacturing industry Predictive maintenance: AI can be used to analyze data from plant sensors to predict when maintenance is needed.

- Quality control: AI can be used to analyze data from cameras, sensors, and other sources to detect defects and improve overall product quality.
- Optimization: AI can be used to optimize production processes, such as scheduling, resource allocation, and logistics, to increase efficiency and reduce costs.

- Robotics and automation: AI-driven robots and automated systems can take over tasks such as welding, painting, and assembling products, reducing the need for human labor and increasing efficiency.
- Supply chain management: AI can be used to optimize the supply chain by analyzing data on inventory, demand, and logistics to make better decisions about production, distribution, and purchasing.
- Predictive analytics: AI can be used to analyze data on production processes, energy consumption, and machine performance to predict future production needs and identify areas for improvement.

Chart 19: Industry Overview: Manufacturing

Example Companies:

Name:	Lead Lake Intelligence (Shenzhen)
Number of Rounds:	2
Last Round:	Angel Round
Total Funding Amount:	CNY 4,000,000
Description:	It is a technology company with modular flexible production cells as its core technological competence. It focuses on the design of identification and positioning technology represented by machine vision, data acquisition and data processing technology represented by industrial IoT and AI. It helps provide customers with future-oriented flexible production and intelligent manufacturing total solutions.

Name:	Ningbo Glauber Intelligent Industry
Number of Rounds:	5
Last Round:	B Round
Total Funding Amount:	Not Disclosed
Description:	It is a company focusing on artificial intelligence and automation control as the main means to carry out quality inspection and control throughout production for traditional manufacturing, the new energy industry, the consumer battery industry, and the 3C electronic products production line, providing comprehensive total solutions.

Security Industry

Artificial intelligence can improve the detection and prevention of cyberattacks, automate security incident response, and enable the development of new security technologies. The application opportunities can be classified as follows.

- Threat detection and response: AI algorithms can be used to analyze large amounts of data, such as network logs and traffic data, to detect and respond to cyber threats in near real time.
- Authentication and identity management: AI can be used to analyze user behavior data, such as typing patterns, mouse movements, and facial recognition, to verify a user's identity and detect suspicious behavior.
- Automated incident response: AI can be used to automate security incident response, such as identifying and isolating infected systems and mitigating and mitigating the impact of an attack.
- Cybercrime and fraud detection: AI can be used to analyze financial transaction data, such as credit card and bank account activity, to detect fraud patterns and financial crimes.
- Malware and virus detection: AI can be used to analyze files and data, such as email attachments, to detect and prevent the spread of malware and viruses.
- Vulnerability management: AI can be used to scan networks and systems to identify vulnerabilities and prioritize them according to risk.
- Penetration testing: Using AI, the process of identifying and exploiting vulnerabilities can be automated to test the effectiveness of security measures.

Chart 19: Industry Overview: Security

Example Companies:

Name:	Nanjing Zongzhiwei Information Technology
Number of Rounds:	3
Last Round:	Pre-A Round
Total Funding Amount:	CNY 10,000,000
Description:	The company is an AI SecOps solutions provider based on artificial intelligence + machine learning. The company has years of experience in white hat attacks and defense. They offer enterprise-level complex Big Data knowledge graph mining analysis and self-developed RedOps security collaborative operations products with built-in knowledge graph computation models.

Name:	Beijing Golden Eye Yunhua Technology
Number of Rounds:	3
Last Round:	A Round
Total Funding Amount:	Not Disclosed
Description:	The company is developing a new generation of network security products based on Big Data technology with artificial intelligence. Products include advanced full traffic threat detection (ATD), full traffic back analysis and forensics products (TFS), big data threat intelligence cloud (CTI), big data security analysis and situational awareness system (CIC), host threat forensics products (HTDs), and cybersecurity platform with artificial intelligence (Deep-Insight), among others.

Smart City Industry

Artificial intelligence can improve the efficiency and sustainability of urban systems, enhance the quality of life for citizens, and enable the development of new urban services. Opportunities for structuring include the following.

- Traffic management: AI can be used to analyze data on traffic patterns, such as real-time traffic flow, accidents, and road conditions, to optimize traffic flow and reduce congestion.
- Intelligent transportation: AI can be used to optimize the planning and routing of public transportation, such as buses and trains, to increase efficiency and reduce costs.
- Intelligent energy management: AI can be used to optimize the use of energy resources such as electricity and natural gas to reduce energy consumption and costs.
- Environmental monitoring: AI can be used to analyze data on air and water quality, weather patterns, and other environmental factors to improve the overall environmental sustainability of the city.
- Public safety: AI can be used to analyze data from cameras, sensors, and other sources to identify potential threats and improve emergency response times.
- Smart buildings: AI can be used to optimize the use of buildings and other infrastructure, such as lighting and heating, to reduce costs and improve energy efficiency.
- Predictive maintenance: AI can be used to analyze sensor data to predict when maintenance is needed on infrastructure and public services such as roads and parks.

Chart 20: Industry Overview: Smart City

Example Companies:

Name:	Guangzhou Cloudsplus Information Technology
Number of Rounds:	2
Last Round:	Equity Financing
Total Funding Amount:	CNY 10,000,000
Description:	It is a provider of professional AIoT (Artificial Intelligence Internet of Things) solutions for commercial office buildings, government agencies, parks, office communities, hotels, and other scenarios based on cloud computing, artificial intelligence, and the Internet of Things as core technologies. The focus is on researching and developing intelligent application scenarios for buildings. Products include solutions for multiple scenarios, such as intelligent visitor systems, intelligent channel management, access control, intelligent greeting, robotic logistics and distribution, building flow management, intelligent conference rooms, etc.

Name:	Qingdao Hainayun Technology Holding
Number of Rounds:	5
Last Round:	A Round
Total Funding Amount:	CNY 200,000,000
Description:	It is an ecological platform for digital city IoT. The company focuses on developing the technology platform for digital city IoT. Based on AIoT platform, it provides one-stop solutions for all scenarios, such as digital infrastructure construction, building lifecycle management, and Big Data services for the Internet of Things for "urban micro-units" such as municipalities, parks, streets, buildings, and hotels.

Chips Industry

Artificial intelligence can improve the performance and efficiency of chip designs, enable the development of new chip technologies, and make chip manufacturing more cost-effective. Other ways AI can be used in the computer chip industry include the following.

- Chip design: AI can be used to optimize chip layouts and designs, such as improving circuit routing and reducing power consumption to make chips more efficient and improve their performance.
- Testing and validation: AI can be used to analyze data from chip tests and simulations to identify potential problems and improve the quality of chip designs.
- Manufacturing: AI can be used to optimize the manufacturing process, such as scheduling, resource allocation, and logistics, to increase efficiency and reduce costs.
- Quality control: using AI, data from cameras, sensors, and other sources can be analyzed to detect defects and improve overall chip quality.
- Chip performance optimization: AI can be used to optimize chip performance by analyzing data on chip usage, temperature, and power consumption.
- Yield management: AI can be used to analyze chip production data and identify factors that affect production yield in order to optimize production and increase yield.

Chart 21: Industry Overview: Chips

Example Companies:

Name:	Zhuhai Eeasy Technology
Number of Rounds:	5
Last Round:	B Round
Total Funding Amount:	CNY 120,000,000
Description:	The company is a system solution provider with AI algorithms for machine vision and SoC chip design, focusing on the development of general-purpose AI SoC chips on the end side and aiming to equip trillions of end devices with AI chips for intelligence.

Name:	Nanjing Big Fish Semiconductor Co.
Number of Rounds:	3
Last Round:	Pre-A Round
Total Funding Amount:	CNY 100,000,000
Description:	It is a chip design company focusing on AI and IoT and is one of the few high-tech companies in the world that can provide SoC design, system software development, modem communication technology development, software, and hardware system integration, and smartphone design.

Robotics Industry

Artificial intelligence can improve the performance and functionality of robots, enable the development of new robotic applications, and make robotics more cost-effective. Specific uses of AI in the robotics industry include.

- Autonomous navigation: AI can be used to enable robots to navigate and operate autonomously without human intervention.
- Perception and sensor fusion: using AI, data from a variety of sensors such as cameras, LiDAR, and sonar can be analyzed to help robots perceive and understand their environment.
- Object detection and recognition: AI enables robots to detect and recognize objects such as people and products, which can be used for applications such as self-driving cars, drones, and service robots.
- Natural language processing: AI enables robots to understand and respond to commands in natural language, which can be used in applications such as customer service, personal assistants, and home automation.
- Predictive maintenance: Using AI, data from robot sensors can be analyzed to predict when maintenance is needed and identify potential problems before they occur, reducing downtime and increasing efficiency.

Chart 21: Industry Overview: Robotics

Example Companies:

Name:	Beijing Yunji Technology.
Number of Rounds:	10
Last Round:	C Round
Total Funding Amount:	CNY 636,800,000
Description:	The company is a startup focused on commercial robotic services. It has rich experience in indoor positioning and navigation, intelligent movement of robots, and application of Big Data, and owns a number of intellectual property rights of robots widely used in hospitality and entertainment, smart home, hotel, and medical fields.

Name:	Ubtech Robotics Corp
Number of Rounds:	9
Last Round:	D Round
Total Funding Amount:	CNY 6,511,160,000
Description:	It is a developer of intelligent humanoid robots and is dedicated to the technological development, technical consulting, sales, and maintenance of intelligent robots and related fields.

Media & Entertainment Industry

Artificial intelligence can improve content personalization and targeting and streamline production and distribution processes in the media and entertainment industry. Other use cases

- Personalization and recommendations: AI can be used to analyze data about customer behavior, such as viewing patterns, to provide personalized recommendations and improve the overall customer experience.
- Marketing and advertising: AI can be used to analyze data about customer behavior, demographics, and preferences to target marketing campaigns and improve the effectiveness of advertising.
- Video production: AI can be used to streamline the process of creating and editing video, for example, by editing or generating footage or adding special effects,
- Image recognition: AI can be used to analyze images, e.g., in movies or social media, and extract relevant information, e.g., about people, objects, and places.
- Music creation and composition: AI can be used to create music and analyze and understand the structure and style of existing music to create new songs.

Chart 22: Industry Overview: Media & Entertainment

Example Companies:

Name:	Beijing Haimi Culture Media
Number of Rounds:	5
Last Round:	A Round
Total Funding Amount:	Not Disclosed
Description:	The company is the most creative and communication value virtual video marketing platform in China. Committed to the integration and application of artificial intelligence (AI) and virtual image technology to create an innovative marketing scenario integrating advertising creativity, media release, artificial intelligence, and big data management for customers. While creating new business reports for advertisers, agencies, video media, and IP also increases video entertainment and interactivity and improves user experience.

Name:	Shanghai Zhi Zhi Information Technology
Number of Rounds:	1
Last Round:	Seed Round
Total Funding Amount:	Not Disclosed
Description:	The company is developing an AI motion capture analysis system. It used visual AI algorithms to fully automate the recording of athletes' highlight videos and performance data, and then on-chain with NFT avatar + on-chain sports data/video confirmations + sports level growth system as the core

Agriculture Industry Industry

Artificial intelligence can improve crop yields, reduce the use of resources such as water and fertilizers, and enable the development of new agricultural technologies. Areas of application include the following.

- Monitoring and predicting crops: AI can be used to analyze data from sensor networks, drones, and satellites to predict crop yields, detect plant diseases, and identify areas that need irrigation.
- Precision agriculture: AI can be used to optimize the use of resources such as water and fertilizer by analyzing data on crop growth and weather patterns to determine the exact amount of resources needed for optimal growth.
- Livestock monitoring: AI can be used to monitor and analyze data on livestock behavior and health, such as through the use of cameras and sensors, to improve animal welfare and increase yields.
- Automated tractors and drones: AI can be used to control automated tractors and drones that can be used for tasks such as planting, harvesting, and spraying.
- Soil and weather analytics: AI can be used to analyze data on soil and weather conditions to predict weather patterns and identify areas where crops will be most productive.
- Yield prediction and optimization: AI can be used to analyze data on crop growth, weather patterns, and resource management to predict crop yields and optimize production.

Chart 23: Industry Overview: Agriculture

Example Companies:

Name:	Beijing Mafei Technology
Number of Rounds:	3
Last Round:	A Round
Total Funding Amount:	CNY 125,000,000
Description:	It is an AI big data company with international technical background, Internet genes, focusing on the field of intelligent agriculture, the whole process of scientific crop protection technology and solutions, for the first time to realize the field of scale plant growth and pest control monitoring business technology.

Name:	AirAG Technology
Number of Rounds:	1
Last Round:	Angel Round
Total Funding Amount:	CNY 20,000,000
Description:	It is an AI company that has been focusing on the laid application of the Internet of Things in agriculture, research and development of intelligent hardware for agriculture, and Big Data analytics in agriculture since its inception, and provides technology and data services for scientific cultivation, food safety traceability and agricultural brand building.

Customer Service Industry

Artificial intelligence can improve the efficiency, personalization and effectiveness of customer support. Applications in the field include

- Chatbots and virtual assistants: AI-driven chatbots can be used to quickly and accurately respond to customer inquiries, such as providing product information, tracking orders, and processing returns.
- Speech recognition and natural language processing: AI can be used to enable voice-driven interfaces such as virtual assistants and to automatically transcribe audio and video to help customer service representatives handle more complex inquiries.
- Personalization and recommendations: Using AI, customer data such as purchase history and browsing behavior can be analyzed to provide personalized product recommendations and improve the overall customer experience.
- Sentiment analysis: AI can be used to analyze customer feedback and complaints to understand the overall sentiment and identify common issues, helping to improve the customer experience.
- Knowledge management: AI can be used to build knowledge bases and provide customer service representatives with the information they need to quickly resolve customer issues.
- Automated ticket processing: AI can be used to analyze customer requests and automatically route them to the appropriate department or customer service representative.

Chart 24: Industry Overview: Customer Service

Example Companies:

Name:	Beijing 7Moor Technology
Number of Rounds:	3
Last Round:	M&A
Total Funding Amount:	CNY 45,000,000
Description:	The company is a domestic intelligent customer service system provider. It has developed a cloud-based call center communication platform to provide cloud customer service, cloud telemarketing, cloud switchboard, cloud conferencing, and other enterprise communication products. The company's enterprise customers cover finance, education, Internet, B2B, automotive, medical, and other industries.

Name:	Shenzhen You Say I Do Intelligence
Number of Rounds:	2
Last Round:	Pre-A Round
Total Funding Amount:	CNY 10,000,000
Description:	It is an AI company that automates the sales process. To sell a product, the company uses chatbots and phones to facilitate purchases and then returns through IM and TM customer service robots to replace manual phones and network salespeople to achieve complete automation of the sales process.

Energy Industry

Artificial intelligence can improve the efficiency and reliability of energy systems, enable the development of new energy technologies, and optimize the use of energy resources. Other use cases include.

- Intelligent grid management: AI can be used to analyze data on energy use, generation, and transmission to optimize the distribution and management of electricity, which can help increase efficiency and reduce costs.
- Predictive maintenance: AI can be used to analyze sensor data to predict when maintenance is needed on energy infrastructure such as power plants, wind turbines, and solar panels to reduce downtime and increase efficiency.
- Renewable energy: AI can be used to optimize the performance of renewable energy systems such as solar and wind power by analyzing data on weather patterns and energy use to predict energy production and optimize energy use.
- Optimizing energy use: AI can be used to optimize the use of energy resources by analyzing data on consumption patterns and making recommendations to reduce consumption and costs.
- Demand response: AI can be used to predict and respond to changes in energy demand by automatically adjusting the output of power plants and other energy infrastructure.
- Predictive analytics: AI can be used to analyze data on energy systems to predict future energy demand and identify areas for improvement.

Chart 25: Industry Overview: Energy

Example Companies:

Name:	Yuanneng Xingtai (Tianjin) Digital Technology
Number of Rounds:	1
Last Round:	Angel Round
Total Funding Amount:	Not Disclosed
Description:	The company is a next-generation production and operation monitoring platform based on digital twins in the power industry. They are developing a PaaS-level digital twin toolchain, including a digital twin-engine, an AI simulation engine for the energy sector, a three-dimensional reconstruction engine, etc., to help energy companies achieve digital transformation and structured transformation of the energy industry.

Name:	Nanjing Saturn Vision Technology
Number of Rounds:	1
Last Round:	A Round
Total Funding Amount:	CNY 110,000,000
Description:	The company is a power grid artificial intelligence solution provider based on artificial intelligence technology to provide users with portable edge computing AI detection equipment. It is committed to helping users solve the power grid equipment inspection problem.

Human Resources Industry

Artificial intelligence can streamline and automate HR processes, improve efficiency in recruiting and hiring, and enable the development of new HR technologies. Other potential applications include:

- Recruiting and hiring: AI can be used to analyze resumes, applications, and other applicant data to identify the best candidates for a job and automate repetitive tasks such as scheduling interviews.
- Employee engagement and retention: AI can be used to analyze employee engagement data, such as surveys and feedback, to identify patterns and areas for improvement.
- Talent management: AI can be used to analyze employee performance data, such as productivity and performance metrics, to identify opportunities for improvement and optimize talent management strategies.
- Onboarding: AI can automate the onboarding process by providing relevant information to new employees, completing paperwork, and scheduling training.
- Workforce analytics: AI can be used to analyze data on workforce demographics, skills, and turnover to optimize workforce planning and improve the overall effectiveness of HR strategies.

Chart 26: Industry Overview: Human Resource

Example Companies:

Name:	Spirit Pai Single Network Technology (Shanghai)
Number of Rounds:	1
Last Round:	Angel Round
Total Funding Amount:	Not Disclosed
Description:	The company is a flexible employment platform based on AI algorithms. They aim to change the industry model and use intelligently defined unit packages based on Big Data combined with AI models to appropriately reduce companies' labor costs, improve labor efficiency, and increase personal income.

Name:	Shanghai Yicheng Information Technology
Number of Rounds:	3
Last Round:	C Round
Total Funding Amount:	CNY 752,400,000
Description:	The company is focused on providing AI recruitment solutions and is the first HR TECH company in China to set up an algorithm department to apply artificial intelligence and Big Data to recruitment solutions. It realizes intelligent recruitment process management through its unique "Intelligent Job Matching" and "Talent Quality Matching", which have been developed with great care over the past 5 years.

Greentech Industry

Artificial intelligence can improve the efficiency and sustainability of greentech systems, enable the development of new greentech technologies, and optimize the use of natural resources. Possible applications include the following.

- Intelligent energy management: AI can be used to optimize the use of energy resources such as electricity and natural gas, reduce energy consumption and costs, and improve the efficiency of renewable energy systems.
- Environmental monitoring: AI can be used to analyze data on air and water quality, weather patterns, and other environmental factors to improve the overall environmental sustainability of the region.
- Waste management: AI can be used to analyze data on waste streams and identify the most effective ways to reduce waste and improve recycling rates.
- Climate modeling: AI can be used to analyze data on weather patterns, greenhouse gas emissions, and other factors to predict and model future climate conditions.
- Energy-efficient buildings: AI can be used to optimize the use of buildings and other infrastructure, such as lighting and heating, to reduce costs and improve energy efficiency.

Chart 27: Industry Overview: Greentech

Example Companies:

Name:	Shanghai Carbon Balance Technology.
Number of Rounds:	2
Last Round:	Angel Round
Total Funding Amount:	CNY 10,000,000
Description:	It is a technology company that enables businesses to manage climate change risks and achieve green and low-carbon transformation. It aims to provide businesses with comprehensive carbon-neutral digital transformation solutions through Big Data, the Internet of Things, and artificial intelligence.

Name:	Guangdong Gongye Technology
Number of Rounds:	3
Last Round:	A Round
Total Funding Amount:	CNY 1,100,000,000
Description:	It is an artificial intelligence, and Big Data company focused on solid waste recycling and sorting. The company considers intelligent sorting equipment as its core and provides standardized total equipment solutions for customers. The company has supplied hundreds of waste recycling companies with intelligent sorting equipment and services. As a provider of sorting equipment with integrated artificial intelligence and photo electricity, our products are widely used in industries such as recycling, household waste, and construction and renovation waste.

Education Industry

Artificial intelligence can personalize and enhance learning experiences, enable the development of new educational technologies, and streamline administrative tasks. Other possible applications include

- Personalized learning: AI can be used to analyze student data, such as learning progress and performance, to personalize the learning experience and provide tailored learning plans and recommendations.
- Tutoring and mentoring: AI can be used to provide personalized tutoring and mentoring to students by analyzing student data and identifying areas where the student needs additional help.
- Automated grading: AI can be used to grade essays, homework, and other assignments, easing the burden on teachers and providing feedback to students more quickly.
- Student tracking and analytics: AI can be used to track student progress, attendance, and other data to provide teachers with real-time insights into student performance and areas where they need more help.

Chart 28: Industry Overview: Education

Example Companies:

Name:	Shenzhen Youlexue Technology
Number of Rounds:	4
Last Round:	B Round
Total Funding Amount:	CNY 166,800,000
Description:	The company offers an AI online product for teaching English to children aged 5 to 10. Based on AI technology such as image recognition and natural language processing, it simulates a real American teacher to create an interactive classroom teaching scenario and adds many interactive English games to language teaching to enhance children's learning fun and initiative.

Name:	Anhui DrawinAI Technology
Number of Rounds:	1
Last Round:	Seed Round
Total Funding Amount:	CNY 1,000,000
Description:	The company is a national center of the language and artificial intelligence industry and is dedicated to the research of artificial intelligence in early childhood education and the development of intelligent products and teaching aids. The company's vision: the first artificial intelligence brand in children's education.

Supply Chain & Logistics Industry

Artificial intelligence can significantly impact supply chain and logistics industries by optimizing the management and flow of goods, improving supply chain visibility, enabling the development of new logistics technologies, and streamlining operations. Application opportunities may include the following:

- Predictive demand planning: using AI, data on sales, customer behavior, and other factors can be analyzed to predict future demand for goods to optimize inventory levels and reduce costs.
- Transportation optimization: AI can be used to optimize the scheduling and routing of transportation assets such as trucks, ships, and planes to reduce costs, improve efficiency, and adapt to real-time changes.
- Supply chain visibility: AI can be used to monitor the entire supply chain, from raw materials to final delivery, providing real-time insights into inventory levels, shipping status, and other factors to improve overall visibility.
- Fraud detection: using AI, data on purchase orders, invoices, and other financial transactions can be analyzed to detect and prevent fraud and ensure compliance.
- Inventory management: AI can be used to optimize inventory levels by analyzing demand and inventory data to reduce waste and increase efficiency.
- Quality control: using AI, data on product quality, defects, and customer feedback can be analyzed to quickly identify and fix problems, reducing waste and improving overall quality.

Chart 29: Industry Overview: Supply Chain & Logistics

Example Companies:

Name:	Beijing Chinaway Technology
Number of Rounds:	10
Last Round:	Strategic Financing
Total Funding Amount:	CNY 4,876,400,000
Description:	The company offers an intelligent IoT platform based on the industry's unique artificial intelligence and Internet of Things (AIoT) technology platform. It provides large logistics companies and tens of thousands of freight fleets with integrated fleet management solutions that cover the entire process of fleet operations, such as safety, billing, finance, and smart equipment.

Name:	Hangzhou Zhiyi Technology
Number of Rounds:	5
Last Round:	D Round
Total Funding Amount:	CNY 7,040,000,000
Description:	The company is an AI-based provider of flexible supply chain solutions for the apparel industry, using artificial intelligence technologies such as image recognition, temporal sequence analysis, personalized recommendations, and more. Combining data-driven trend planning, design selection, and supply chain organization with AI-driven standardized output, the company provides apparel brands and e-commerce celebrities. We offer SaaS-based data planning and selection tools and supply chain services for apparel design from a single source.

Construction Industry

Artificial intelligence can improve the efficiency, safety, and sustainability of construction projects, enable the development of new construction technologies, and optimize the use of resources. Some specific ways AI is or can be used in the construction industry include:

- Safety and security: AI can be used to monitor job sites for potential safety hazards, such as falls and equipment malfunctions, and to improve safety by detecting and identifying intruders.
- Project management: AI can be used to analyze data on project progress, resource utilization, and other factors to optimize project schedules, reduce costs, and improve overall project management.
- Building Information Modeling (BIM): AI can be used to create and manage BIM models to optimize building design, construction, and maintenance.
- Autonomous devices: AI can be used to control autonomous devices such as drones and construction robots to increase efficiency and reduce costs.
- Resource management: AI can be used to optimize the use of resources such as labor and materials to reduce costs and increase efficiency.
- Site mapping and inspection: AI can be used to create and analyze site plans and 3D models to identify potential hazards and ensure that

Chart 30: Industry Overview: Construction

Example Companies:

Name:	Suzhou Fang Shi Technology
Number of Rounds:	3
Last Round:	Pre-A Round
Total Funding Amount:	Not Disclosed
Description:	It is a high-tech start-up company that focuses on the research and development and production of special construction robots, providing automated construction solutions for the construction industry. The company combines robot technology with the construction industry to develop a special robot with professional construction functions. Based on the development needs of construction industrialization, the company provides customers with modular construction robot combination products and creates an industrial solution for intelligent construction with multiple scenes.

Name: Shenzhen Xiaoku Technology.
Number of Rounds: 6
Last Round: Strategic Financing
Total Funding Amount: CNY 357,800,000
Description: The company is active in the field of the intelligent construction industry. Underlying digital language of the construction industry (AI- BIM- Cloud), focusing on solving the problem of inefficient design production and collaborative development decisions in the construction industry. Based on the exclusive model, the intelligent design engine and its small library design cloud provide for design roles of the design side with analysis design review management whole process efficiency, and AI + service is on the project side. Especially in real estate full-cycle production and management, the project can be applied and helps improve design efficiency, quality, and sales, parallel digital design whole cycle.

Hospitality Industry

Artificial intelligence can automate repetitive tasks and enable the development of new technologies in the hospitality industry. Some specific ways AI is or can be used in the hospitality industry include:

- Chatbots and virtual assistants: AI-powered chatbots can provide quick and accurate responses to customer queries, such as information about reservations, amenities, and local attractions.
- Personalized recommendations: Using AI, customer data such as purchase history and browsing behavior can be analyzed to provide personalized recommendations for hotels, restaurants, and local attractions.
- Pricing optimization: AI can be used to optimize pricing for hotel rooms and other services by analyzing data on demand, occupancy, and other factors.
- Sentiment analysis: AI can be used to analyze customer feedback and complaints to understand the overall sentiment and identify common issues, helping to improve the customer experience.
- Smart buildings: AI can be used to optimize energy consumption in hotels by controlling lighting, heating, and other systems based on occupancy and usage patterns.
- Automated check-in and check-out: AI can be used to automate the check-in and check-out process by leveraging facial recognition, voice recognition, and other technologies to increase efficiency and reduce guest wait times.

Chart 31: Industry Overview: Hospitality

Example Companies:

Name: Shanghai Fuchuang Internet Technology
Number of Rounds: 1
Last Round: A Round
Total Funding Amount: CNY 10,000,000
Description: The company is dedicated to AI+IoT+SaaS, a new generation of smart accommodation technology solutions based on five applications: Smart Reception, Smart Rooms, Smart Access, Smart Services, and Smart Operations, to realize digital guest touchpoints throughout the environment, redesign the guest experience and create intelligent services.

Name: Suzhou Wheel Technology
Number of Rounds: 4
Last Round: A Round
Total Funding Amount: CNY 58,000,000
Description: It is a cloud service provider for NLP assistants in the lifestyle sector, able to close the closed loop from human-machine dialogue to payment of orders in scenarios such as cinema, hotel, restaurant, and snack bar.

Legal Industry

Artificial intelligence can automate repetitive tasks, improve the efficiency of legal research, and enable the development of new legal technologies. Other opportunities include.

- Contract review: AI can be used to analyze and review contracts to identify potential issues and ensure legal compliance.
- Legal research: using AI to quickly search large volumes of legal documents such as case law and statutes to identify relevant information and precedents.
- Document management: AI can automate the process of organizing, cataloging, and archiving legal documents, reducing the administrative burden on legal staff.
- Predictive coding: AI can be used to sort and identify relevant documents during e-discovery, which can significantly speed up the process and reduce discovery costs.
- Compliance management: AI can be used to monitor and analyze data to identify and mitigate regulatory compliance risks

Chart 32: Industry Overview: Legal

Example Companies:

Name:	Beijing Power Law Intelligent Technology
Number of Rounds:	3
Last Round:	A Round
Total Funding Amount:	CNY 80,000,000
Description:	It is an artificial intelligence startup focused on the legal field. Based on natural language processing, data mining and other technologies, it provides intelligent information retrieval, legal knowledge management, intelligent contract review, intelligent legal advice and other products and services, and is committed to improving the efficiency of lawyers and providing smarter, more convenient and cost-effective legal services to the public.

Name:	Chongqing Yunfadai Information Technology.
Number of Rounds:	1
Last Round:	Angel Round
Total Funding Amount:	CNY 10,000,000
Description:	The company aims to build a world-class new legal intelligence platform. With the three-in-one platform model of "Internet + Artificial Intelligence + Law", the company focuses on providing professional, efficient, and secure legal Internet services to small and medium-sized enterprises across the country.

Aerospace Industry

Artificial intelligence has the potential to significantly impact the aerospace industry by improving the performance, efficiency, and safety of aerospace systems, enabling the development of new aerospace technologies, and optimizing the use of resources. Some specific ways AI is or can be used in the aerospace industry include:

- Flight control and navigation: AI can be used to improve aircraft and spacecraft performance by optimizing flight control and navigation systems and automatically adjusting them to changes in weather, air traffic, and other factors.
- Design and simulation: AI can be used to optimize the design of aircraft, spacecraft, and other aerospace systems by simulating the performance and identifying areas for improvement.
- Manufacturing and production: AI can be used to optimize the manufacturing and production of aerospace components and systems by analyzing data on resource utilization, quality control, and other factors.
- Traffic management: AI can be used to optimize the planning and routing of aircraft and drones to reduce costs, improve efficiency, and adapt to changes in real-time.
- Predictive analytics: AI can be used to analyze data on aerospace systems to predict future performance, detect potential problems, and identify areas for improvement.

Chart 33: Industry Overview: Aerospace

Example Companies:

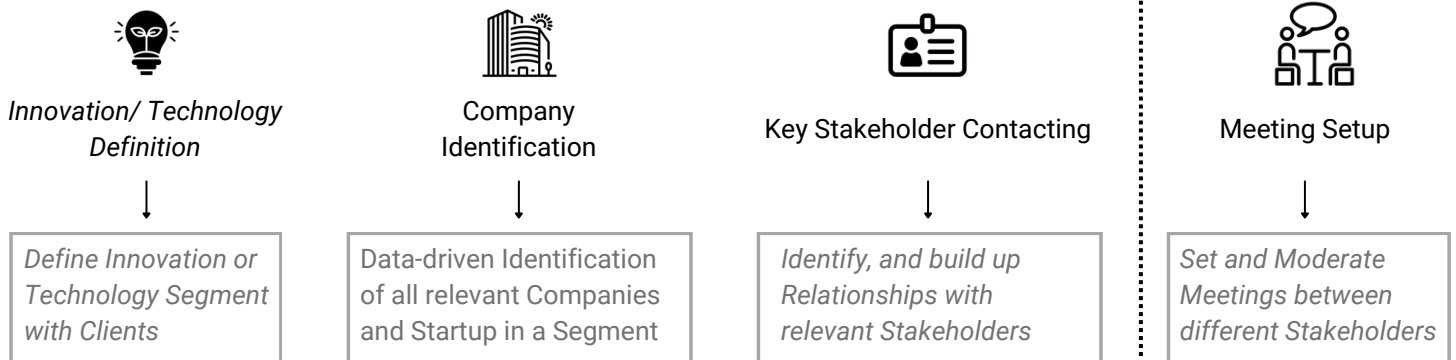|	
Name:	Geospace Technology (Hangzhou)
Number of Rounds:	4
Last Round:	A Round
Total Funding Amount:	Not Disclosed
Description:	It is a global intelligent space satellite company. The company mainly engages in AI satellite design and development, intelligent constellation investment and operation, SaaS decision-making, intelligent platforms, and data application services.

CIMK is an **Innovation Intelligence and Data Analytics Company** based in China
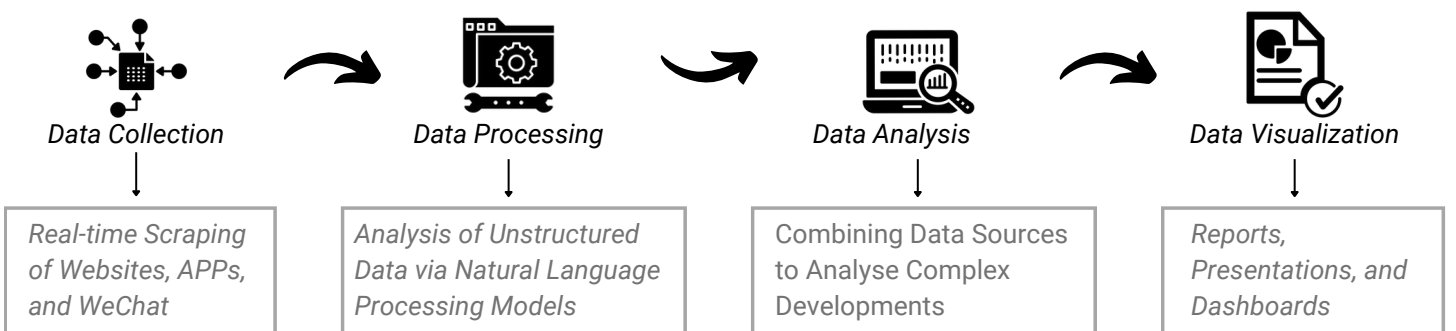
CIMK's Mission

CIMK uses technology to increase transparency around innovation, technological developments, and startups in the Chinese market. We offer our international clients an exclusive opportunity to identify innovations and technological developments in their industry while also offering to put them in direct contact with startups and industrial companies to facilitate mutual exchanges, interesting partnerships, and investments.

CIMK's Innovation Partnership Approach

Innovation/ Technology Definition	Company Identification	Key Stakeholder Contacting	Meeting Setup
Define Innovation or Technology Segment with Clients	Data-driven Identification of all relevant Companies and Startup in a Segment	*Identify, and build up Relationships with relevant Stakeholders*	Set and Moderate Meetings between different Stakeholders

CIMK's Data-Driven Approach

Data Collection	*Data Processing*	*Data Analysis*	*Data Visualization*
Real-time Scraping of Websites, APPs, and WeChat	*Analysis of Unstructured Data via Natural Language Processing Models*	Combining Data Sources to Analyse Complex Developments	*Reports, Presentations, and Dashboards*

Management Team

Our Nanjing-based team combines technical skills, industry-specific knowledge, and an intercultural mentality in a way that enables us to help our client to stay up-to-date with all innovations and technological developments in their industry in China.

Lukas Tatge	Eliyahu Kainyah Yalley	Shirley Xue	Mandi Yang
CEO	CTO	COO	Quantitative Research Director

China Startup Ecosystem Report: AI