# Recruitment market visualization report

Registered users can download **visual analysis report of market recruitment situation** to reduce job seeking information gap so as to help data-driven decision-making, which also requires a fee.

Visual chart analysis and consulting reports may be offered. For example, hiring trends in the industry, which jobs are growing and which are shrinking. By comparing the salary distribution and job requirements of the same position in the industry, combined with the user's own situation, it can screen out the job set with the greatest likelihood of success.
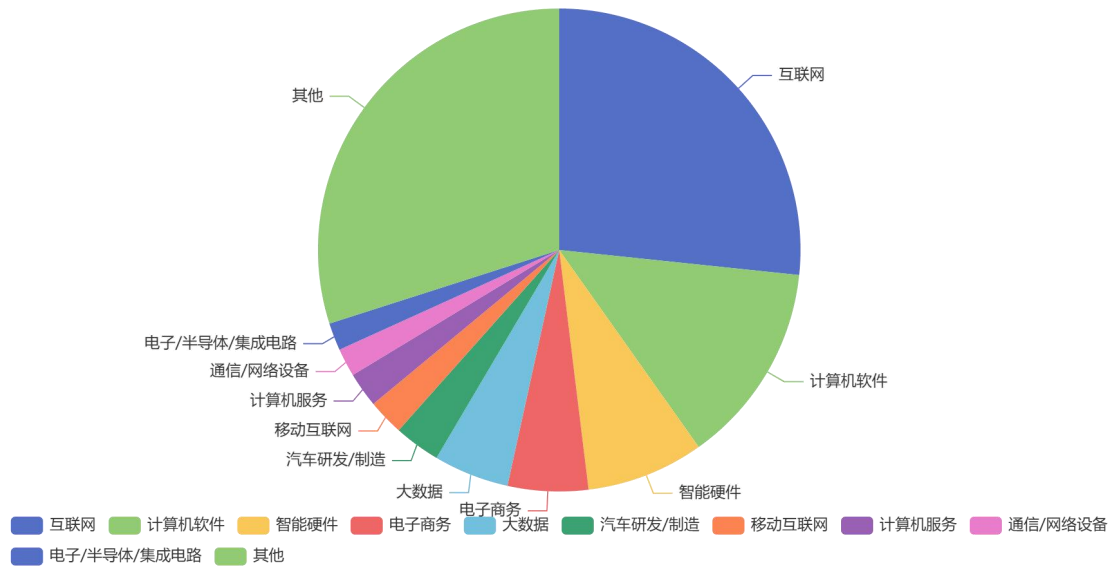
In this report, we mainly focus on the visual analysis of the Internet industry, and we also select two popular positions in the Internet industry, artificial intelligence and back-end development, to give a sample display of our visual analysis report.

The distribution chart below shows all the job categories in the Internet industry, which are divided into 9 major categories.
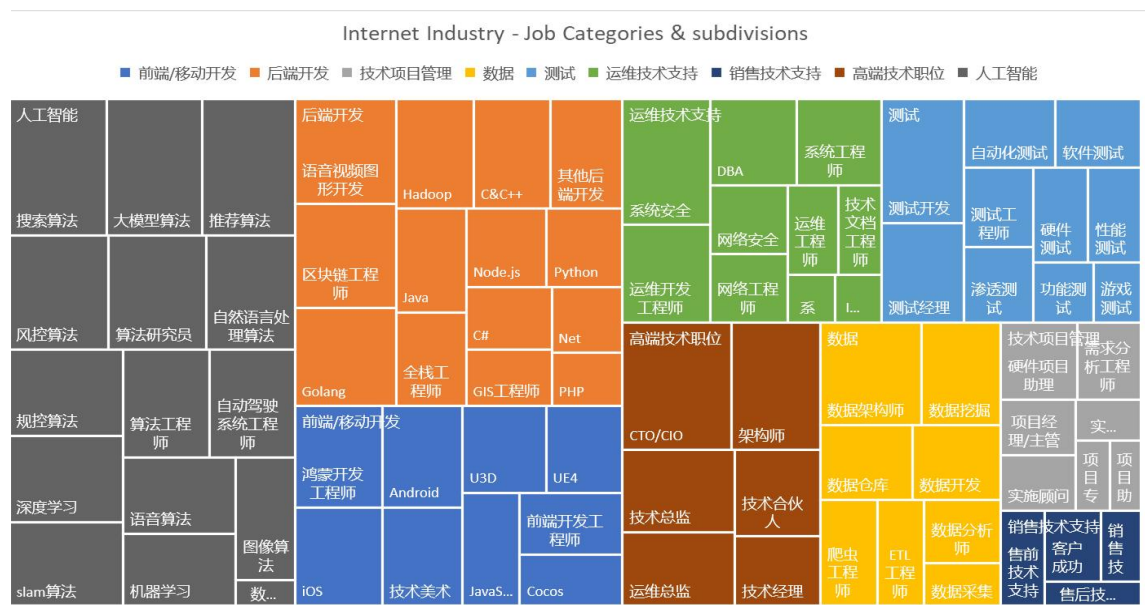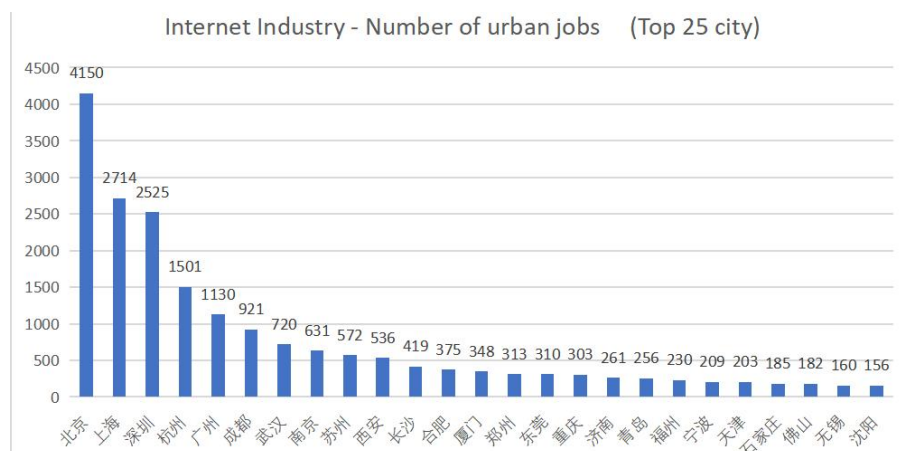

In addition, the pie chart below shows the distribution of the number of job openings in the AI industry, with the highest employment demand in the Internet, computer software and smart hardware sectors.
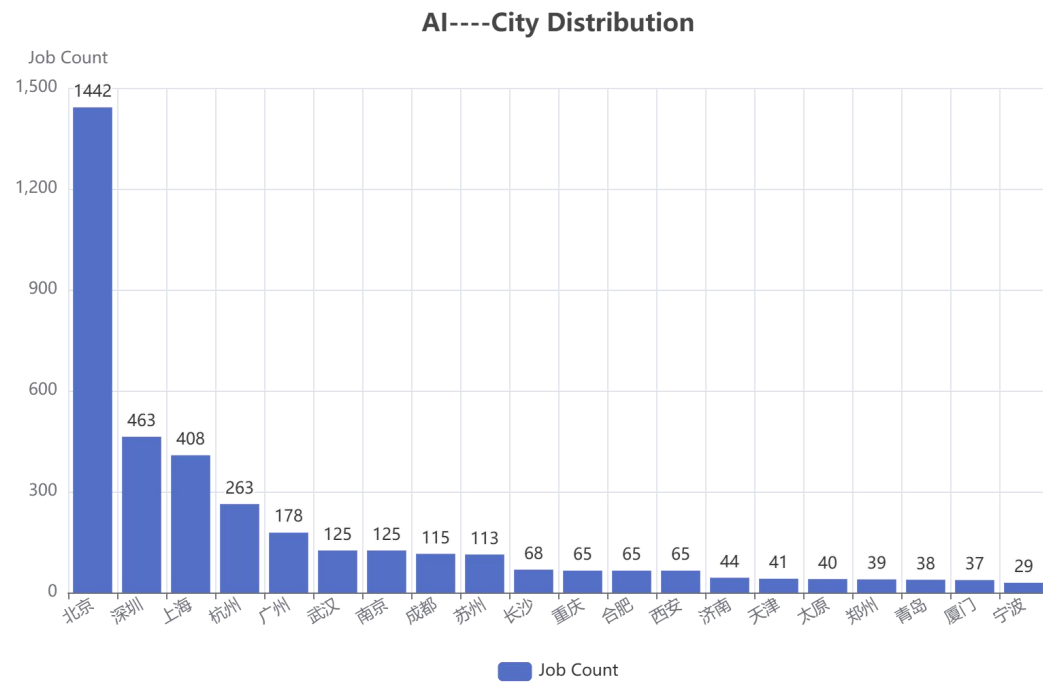
AI----Industry Distribution

互联网

计算机软件

智能硬件

电子商务

大数据

汽车研发/制造

移动互联网

计算机服务

通信/网络设备

电子/半导体/集成电路

其他

- 互联网
- 计算机软件
- 智能硬件
- 电子商务
- 大数据
- 汽车研发/制造
- 移动互联网
- 计算机服务
- 通信/网络设备
- 电子/半导体/集成电路
- 其他

2.1 Job quantity distribution module

From the bar chart of the quantity of jobs by city, we are able to obtain a clear image of the distribution of the number of jobs by city throughout the nation. On the Chinese mainland, the cities with the most job openings are Shenzhen, Shanghai, and Beijing. The purpose of this module's visual aid is to assist users in quickly recognizing hiring hotspots and the relative hiring activity of various cities. It gives job seekers information about each city's hiring situation, enabling them to choose a specific city to focus their search on.

Internet Industry - Number of urban jobs   (Top 25 city)

AI----City Distribution

Job Count

1,442 463 408 263 178 125 125 115 113 68 65 65 65 44 41 40 39 38 37 29

北京 深圳 上海 杭州 广州 武汉 南京 成都 苏州 长沙 重庆 合肥 西安 济南 天津 太原 郑州 青岛 厦门 宁波

■ Job Count

2.2 Average payroll distribution module

The module is made to show users, via the use of bar charts and line graphs, how average salary packages are distributed throughout the nation's cities. This gives prospective employees a reliable benchmark for pay ranges and empowers them to choose their job search location with greater knowledge.

City	Salary
北京	43.77
上海	39.80
深圳	34.79
杭州	32.89
广州	26.98
苏州	26.83
南京	26.45
武汉	21.99
成都	21.53
长沙	20.96
宁波	20.08
重庆	19.87
西安	19.56
无锡	19.45
珠海	19.07
厦门	18.92
东莞	18.27
青岛	18.22
天津	17.90
合肥	17.69
福州	17.58
佛山	17.32
常州	17.31
惠州	17.01
大连	15.36
济南	15.13
南昌	14.38
郑州	14.00
沈阳	13.96
太原	10.93
昆明	10.23
石家庄	9.80
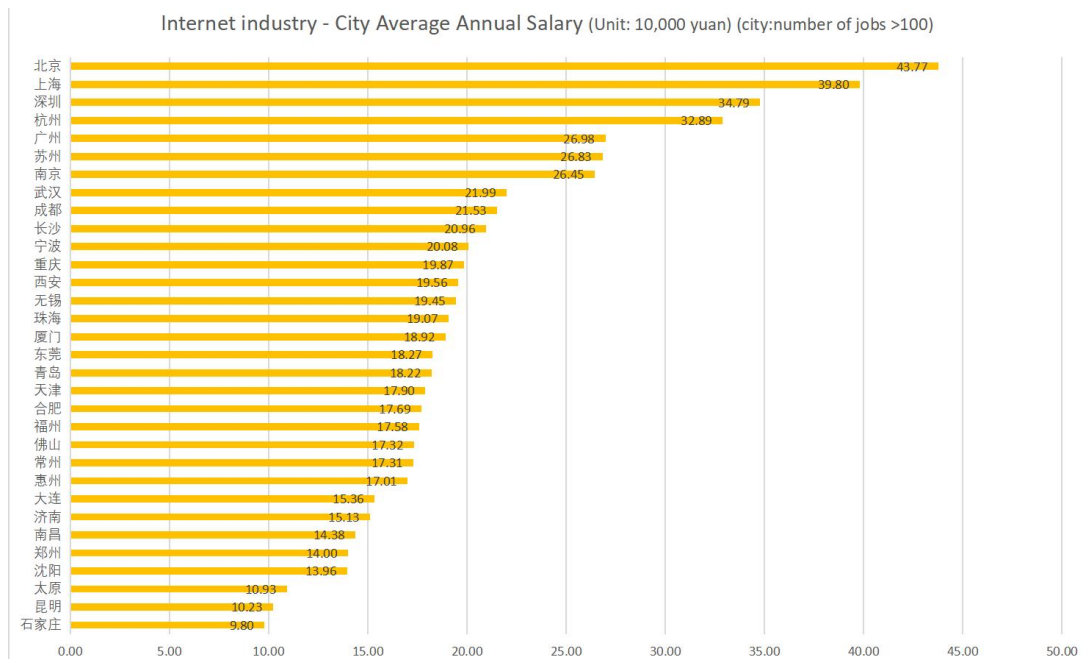
This graph above shows the average annual salary of Internet industry employees by city in China in 2023. The city with the highest average annual salary is Beijing, at 437,700 yuan. The city with the lowest average annual salary is Ordos at 98,000 yuan.

According to the bar chart below, the highest monthly salary for different positions in the Internet industry is "Artificial Intelligence", with a maximum of around $37,270. The lowest monthly salary is for "Algorithm Engineer" at around $7,520. The largest difference between the lowest and highest monthly salary is in the field of "Artificial Intelligence" ($15,310). The minimum monthly salary for most jobs ranged from $10,000 to $20,000, while the maximum monthly salary ranged from $20,000 to $35,000.

Internet Industry - Salary distribution of job categories
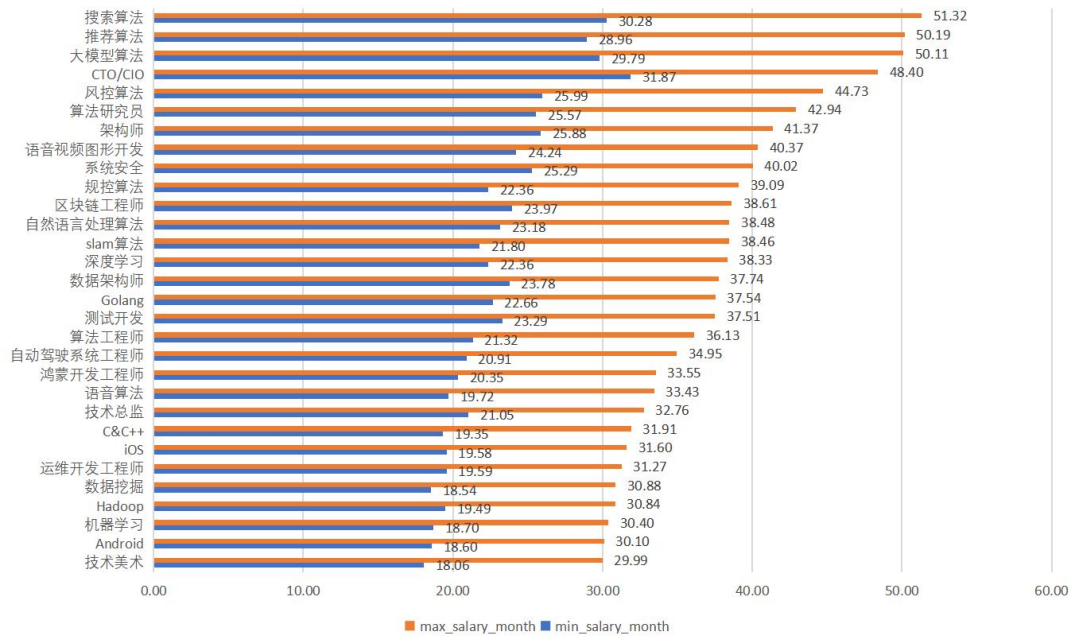(Unit: Monthly salary, thousands)
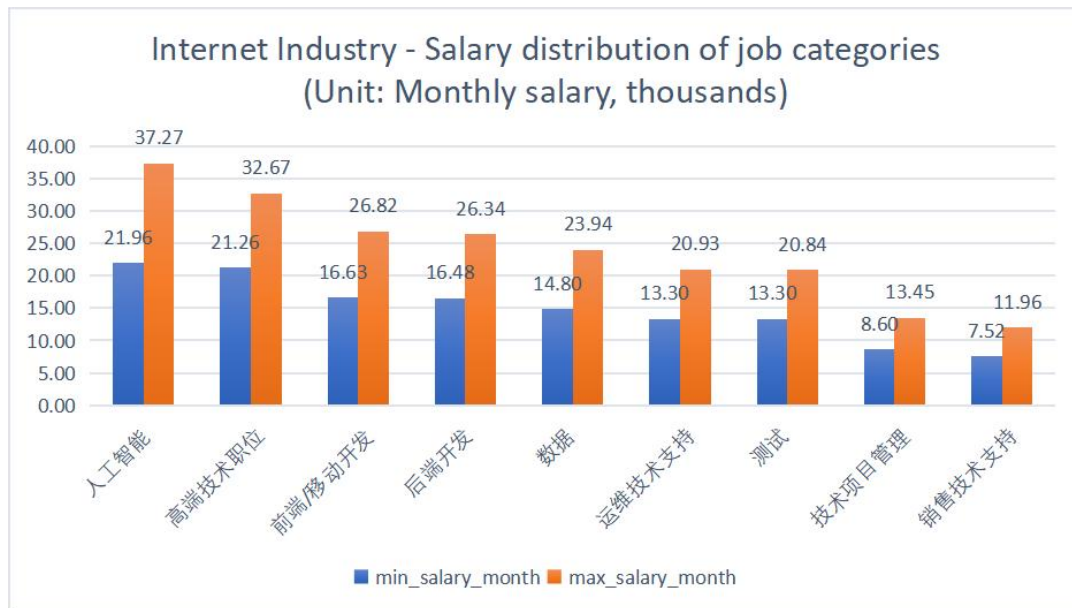
The four charts below show the average salary data for jobs in the Internet industry, along with that of the artificial intelligence and back-end development occupational segments. Based on the visual analysis, the highest paying jobs are Head of Speech Synthesis, Voice and Video Graphics Developer, and Search Engine Optimization, with monthly salaries of 21,700, 40,370, and 51,320 yuan, respectively.

The lowest paying positions are "Search Technologist," "PHP," and "Technical Art," with monthly pay of 6,700, 8,600, and 18,000 yuan, respectively.

The biggest difference between the lowest and highest salaries is found in jobs like "Search Engine Optimization," "Recommendation Algorithms," and "User Experience Design," which suggests higher potential pay but also higher risk. The comparatively narrow salary ranges of jobs like "PHP" and "Net" indicate more stable employment but lower pay.

Internet Industry - Average salary distribution of subdivided positions (Unit: Monthly salary, thousands)　　(Top 30)

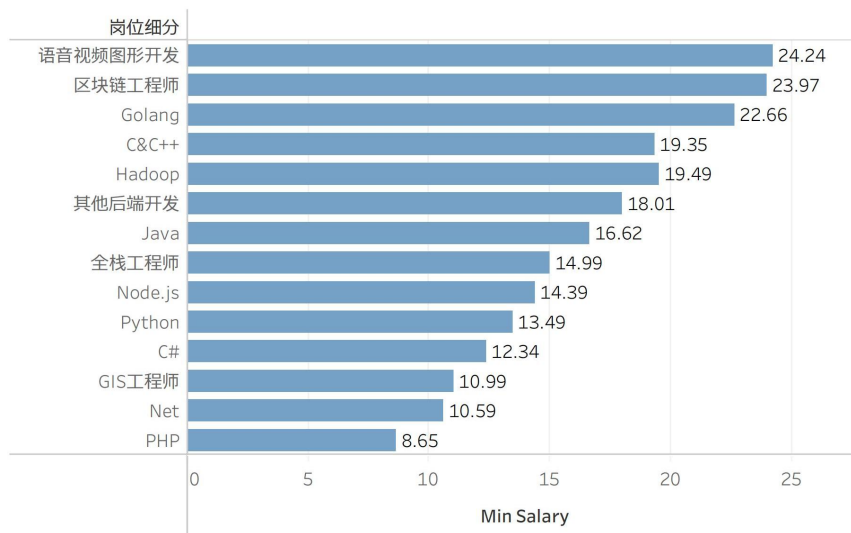| Position	min_salary_month	max_salary_month
搜索算法	30.28	51.32
推荐算法	28.96	50.19
大模型算法	29.79	50.11
CTO/CIO	31.87	48.40
风控算法	25.99	44.73
算法研究员	25.57	42.94
架构师	25.88	41.37
语音视频图形开发	24.24	40.37
系统安全	25.29	40.02
规控算法	22.36	39.09
区块链工程师	23.97	38.61
自然语言处理算法	23.18	38.48
slam算法	21.80	38.46
深度学习	22.36	38.33
数据架构师	23.78	37.74
Golang	22.66	37.54
测试开发	23.29	37.51
算法工程师	21.32	36.13
自动驾驶系统工程师	20.91	34.95
鸿蒙开发工程师	20.35	33.55
语音算法	19.72	33.43
技术总监	21.05	32.76
C&C++	19.35	31.91
iOS	19.58	31.60
运维开发工程师	19.59	31.27
数据挖掘	18.54	30.88
Hadoop	19.49	30.84
机器学习	18.70	30.40
Android	18.60	30.10
技术美术	18.06	29.99

AI----Min vs Max Salary by Job

Salary (K RMB)

Job	Min Salary	Max Salary
语音合成负责人	200	260
xLab 首席科学家	100	200
大模型训练框架技术专家	100	200
xLab 首席科学家	100	200
ai技术总监	100	200
高级搜索/推荐算法专家（正式岗）	100	200
AI安全技术专家	100	200
+数据采集挖掘预处理工程师	120	180
AI大模型技术负责人	100	150
机器学习专家（工业机器人）	100	150
高级算法工程师	100	150
算法-首席工程师/经理	100	150
工业图像算法负责人（居家办公）	100	140
大模型算法负责人（J11228）	90	120
算法研究员	80	110
高级推荐算法工程师	80	110
算法总监	80	110
搜索技术专家	80	110

Backend Developer - Job Breakdown Salary Distribution

岗位细分

Job	Max Salary
语音视频图形开发	40.37
区块链工程师	38.74
Golang	37.54
C&C++	31.91
Hadoop	30.84
其他后端开发	28.65
Java	25.67
全栈工程师	23.09
Node.js	22.85
Python	21.26
C#	19.49
GIS工程师	17.40
Net	16.26
PHP	13.32

Max Salary

Backend Developer - Job Breakdown Salary Distribution

岗位细分

Job	Min Salary
语音视频图形开发	24.24
区块链工程师	23.97
Golang	22.66
C&C++	19.35
Hadoop	19.49
其他后端开发	18.01
Java	16.62
全栈工程师	14.99
Node.js	14.39
Python	13.49
C#	12.34
GIS工程师	10.99
Net	10.59
PHP	8.65

Min Salary

Based on the line graph and scatter plot of the city average monthly salary data for the two job types of Artificial Intelligence and Backend Development in various cities in China, it can be found that: The salary for an Artificial Intelligence position is the highest in Beijing (38,300 yuan) and the lowest in Zhengzhou (11,800 yuan) each

month. Shanghai is the city where back-end algorithm jobs pay the most, with a high salary of about 39,690 yuan. Taiyuan has the lowest minimum salary, at about 7,000 yuan. The highest and lowest salaries in various cities generally show a positive correlation, indicating that higher highest wage cities also typically have higher minimum wages.

AI positions----Industry distribution

Salary (K RMB)

| 北京 38.3 | 上海 37.3 | 深圳 35.5 | 杭州 31.9 | 南京 28.9 | 苏州 28.7 | 广州 28.6 | 宁波 25.6 | 成都 23.1 | 武汉 22.9 | 西安 22.5 | 厦门 21.1 | 长沙 19.9 | 重庆 19.5 | 合肥 18.7 | 济南 18 | 青岛 18 | 东莞 17.7 | 天津 16.8 | 郑州 11.8 |

Average Salary — 24.24

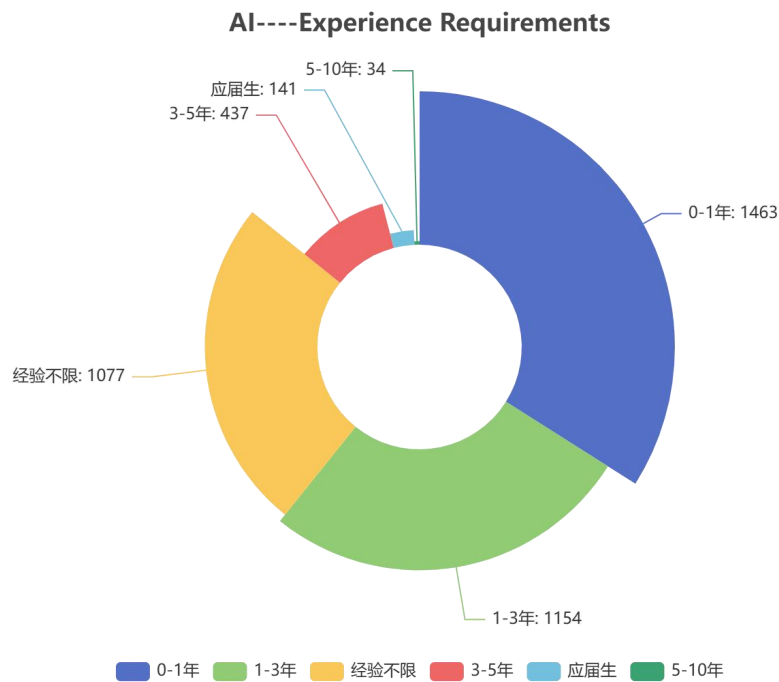Backend Developer - City Average Monthly Salary
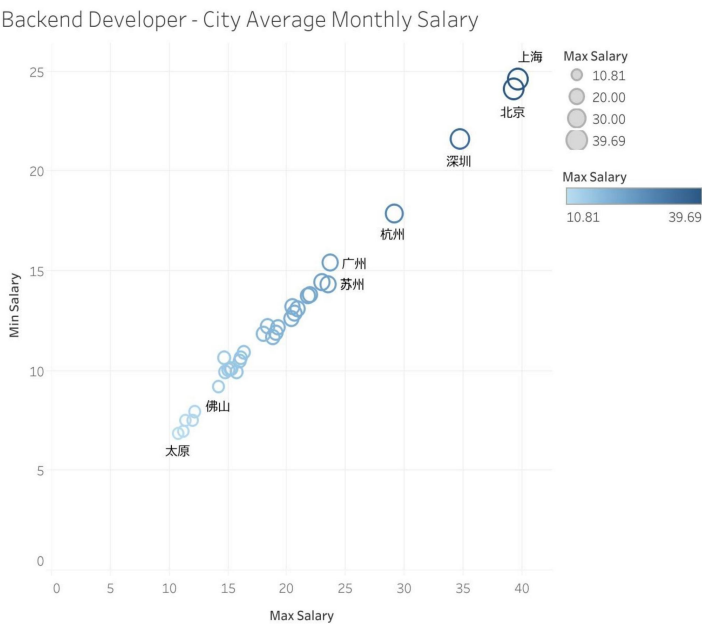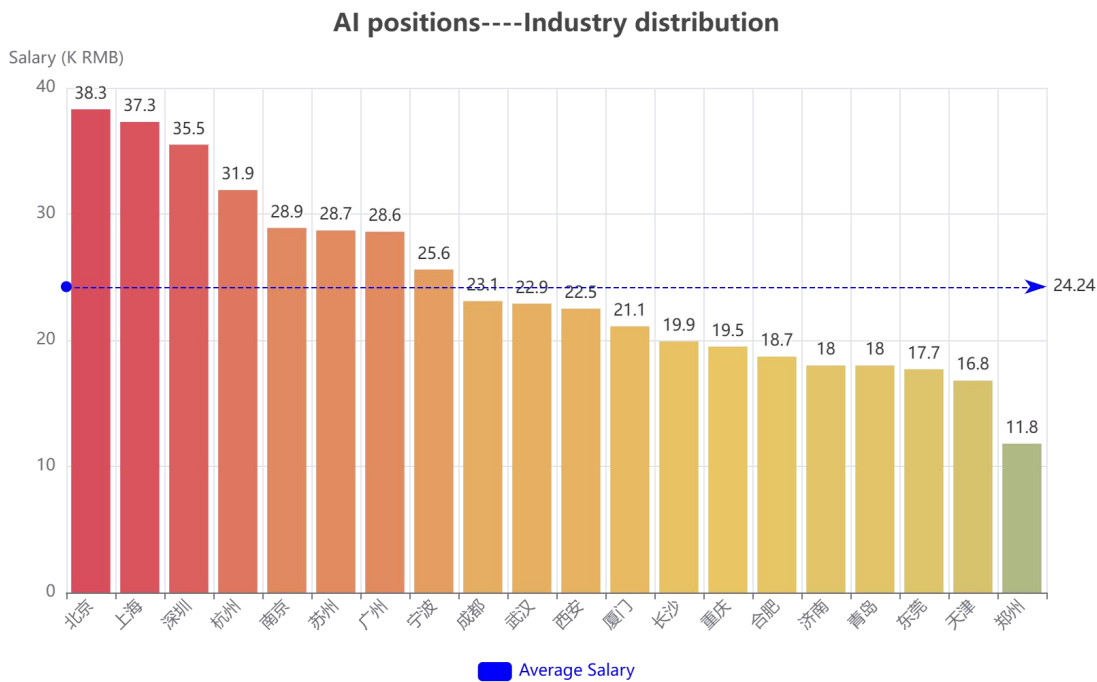
2.3 Recruitment Experience Requirements Module

Visual analysis of recruitment experience requirements can help guide job seekers in their decision making. Through the report, clients can understand the level of experience requirements prevalent in the industry and assess whether they meet the experience needs of a specific position. This section gives job seekers a clearer understanding of industry standards so that they can make more targeted career development plans.
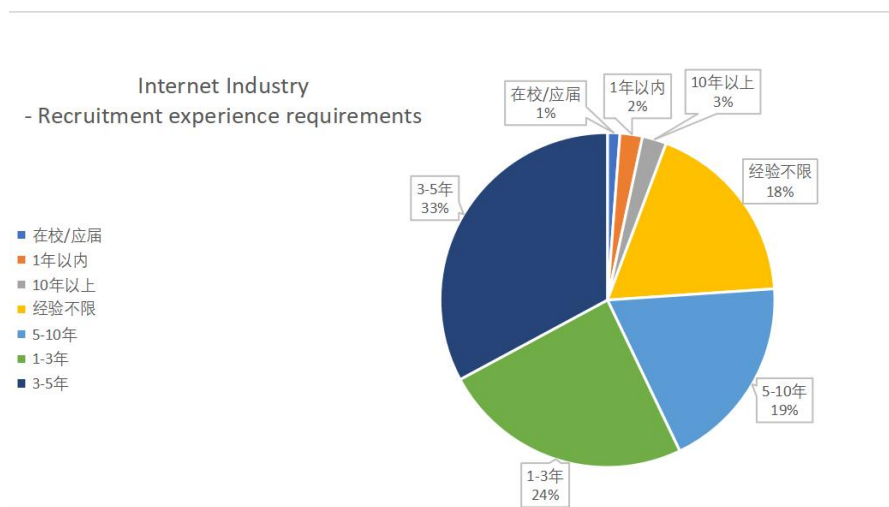
The following analyses can be performed based on the Internet industry's experience requirements, as indicated by the chart: With 24 percent of the total requirements, work experience ranging from one to three years is the most common. This suggests that candidates with a particular level of experience are preferred by the Internet industry. Experience levels of three to five years and five to ten years are also more common, making up 33% and 19% of the total, respectively. This indicates that businesses are seeking individuals with greater experience as well. Up to 19% of the positions had requirements for recent graduates and unlimited experience, suggesting that some work experience requirements are somewhat lax and that there is a need for fresh talent in the Internet sector.

The two charts below show the experience requirements for positions in artificial intelligence jobs and back-end development jobs.

AI----Experience Requirements

- 0-1年: 1463
- 1-3年: 1154
- 经验不限: 1077
- 3-5年: 437
- 应届生: 141
- 5-10年: 34

Legend: 0-1年 | 1-3年 | 经验不限 | 3-5年 | 应届生 | 5-10年

Backend Developer - Job Segmentation Average Work Experience Requirements

岗位细分

度量名称
- Max Experience
- Min Experience

Max Experience 值: 6.320, 6.306, 6.202, 6.193, 5.955, 5.850, 5.615, 5.597, 5.452, 5.198, 5.112, 4.853, 4.834, 4.677

Min Experience 值: 3.575, 3.487, 3.251, 3.372, 3.293, 3.225, 3.062, 3.102, 2.891, 2.755, 2.780, 2.486, 2.478, 2.399

Categories: Hadoop, Java, Golang, 语音视频图形开发, 其他后端开发, 全栈工程师, 区块链工程师, C&C++, Net, C#, Node.js, PHP, GIS工程师, Python

The academic background requirements for job seekers vary for each position. By analysing the two charts below, it can be seen that most of the positions shown require a Bachelor's degree as a minimum academic requirement. A large number of positions also require a Master's degree. Very few positions, especially those in the Golang and Python fields, require candidates to have a PhD.

If the user has a low level of education, by visualising the data he can intuitively know that jobs such as data mining, data annotator and php accept candidates with tertiary qualifications.

AI----Academic Requirements by Job
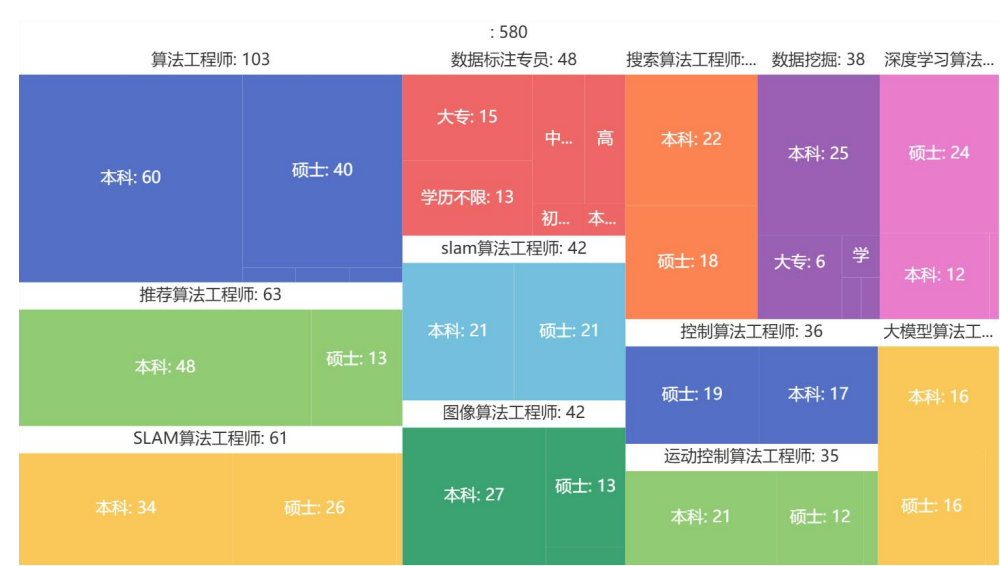
Backend Developer - Job Breakdown Educational Requirements Distribution
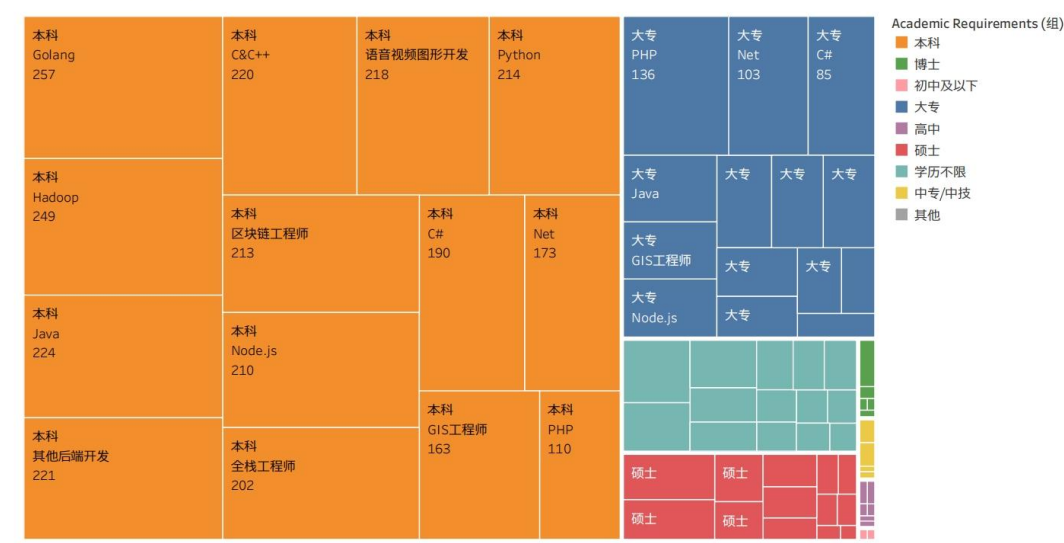
- Overall, through clear charts and graphs, our industry visual analytics give users a deeper understanding of the hiring market dynamics and offer strong decision support for job seekers. In addition to increasing the effectiveness of hiring, this thorough data visualisation gives all stakeholders in the employment market access to more insightful information that will foster improved coordination and communication between employers and job seekers.