
Dear teacher,

I am very honored to participate in the selection of the master of science in data science project summer camp and thank you for reading my personal statement. My name is Jiang Kunyu, and I am from the School of Economics and Management of the University of Electronic Science and Technology of China. I will make a personal statement from four aspects: academic background, internship experience, scientific research experience and future research plan.

1. Academic background

I majored in "Internet +" finance and minored in "Internet +" computer. After three years of hard work, my GPA for the first 5 semesters is 3.84/4, and my major ranking is 4/26. I have not only achieved excellent results in financial professional courses, but also performed well in mathematics related courses, such as probability theory and mathematical statistics (92), financial mathematics (92). Have a good mathematical foundation, I also gained the provincial first prize of the National College Student Mathematical Contest in Modeling and the third prize of the American College Student Mathematical Contest in Modeling. At the same time, my English is excellent, scoring 569 on CET-6. The undergraduate study has cultivated my intuition and interest in finance, and I am eager to continue my studies in the financial field.

2. Internship experience

The programming basic courses and college workshops I learned during the freshman year laid the foundation for my programming. The discrete mathematics and data mining and big data analysis courses in the sophomore year cultivated my interest in data science. In order to foster my business sense and accumulate practical experience, I went to Chengdu Shuzhilian Technology Co., Ltd. for an internship during my sophomore summer vacation. During the internship, I served as a data analyst, took charge of inspecting the defective products of industrial sample pictures, writing a program to classify the pictures, and summarizing the picture data to complete the chart statistics. This internship has cultivated my intuition for data and greatly improved my ability to collect and process data. My work performance was also recognized by the company's employees.

3. Research experience

The basics of finance I learnt in the second year and the financial econometrics learnt in the third year broadened my horizons, allowing me to combine the theory with practice. In a course of the junior year, the professor tried to explain the development of the COVID-19 epidemic in a quantitative way. I was very interested in this and joined the teacher's project team. After studying recent domestic and foreign literature, I decided to use Logistic and SIR methods to study growth rate parameters, and innovatively used change point detection to detect changes in growth rate parameters. In the course of practice, I found that the SIR results were abnormal, determined that there was a problem of multicollinearity and discarded it. Finally, I successfully completed the project report entitled *Analysis of the Epidemic Situation in China and the US Based on the Logistic Model*. This research experience has strengthened my research ability and interest in scientific research, and I became more familiar with the use of econometrics tools.

With the deepening of the junior course, I mastered more research methods. When studying journal articles, I found that the variability of COVID-19 epidemic and the different developments in different parts of the world were still hot topics of discussion. Based on the above research, I used the real-time global epidemic data updated by Johns Hopkins University on Github, selected the United States, Italy, and Japan as the research objects, and followed the Logistic model and

change point detection methods. At the same time, considering the problem of small sample and distribution, I employed bootstrap algorithm to generate confidence interval instead of confidence interval of t distribution, and completed the paper entitled *Multi-country Logistic Growth Rate Index and Change Point Test Based on Bootstrap Algorithm*. The results of the study show that the time of outbreak of the national epidemic is different across regions, and the development of national epidemics in different regions is not synchronized. Therefore, different epidemic prevention measures should be adopted for different countries.

Through these several scientific research experiences, my comprehensive ability has been greatly improved. First of all, the finalization of the topic, the review of a large number of documents, and writing various documents have enabled me to get the basic skills a scientific researcher should have in advance. Secondly, when the progress of the subject was blocked, I was able to face problems calmly, expand my knowledge and actively seek help from teachers, and finally successfully complete the research. I believe that this kind of perseverance can still help me in the postgraduate stage

4. Research interests and future plans

At the undergraduate level, I came into contact with many fields of finance, and at the same time learnt computer related skills. The composite background makes me very interested in financial-related data science research problems and methods, and I hope to continue my explorations in this field.

In the postgraduate stage, I will strive to improve my research ability and practical ability: On the one hand, I will study the graduate courses seriously, read the cutting-edge literature and classic literature in the financial field, and actively participate in academic exchange lectures and forums to improve my knowledge Level and professionalism. On the other hand, I will strengthen my own data processing capabilities and master the use of software such as Stata and Python. At the same time, I will actively pay attention to the dynamics of the social financial industry, such as the recent rise of supply chain finance to improve my financial literacy.

After finishing master's degree, I plan to work in an industry related to my research and strive to apply what I have learned. Therefore, I hope to join a leading financial company or a large company that focuses on big data, which will not only help improve my ability, but also provide a platform to learn from outstanding peers and predecessors.

Shenzhen Finance Institute has always been my dream institution, and I am well aware of the strong strength of ** in academic and career counseling. I sincerely hope to be a student of **, continue to study and create value for it. Thank you again your time and consideration!