

Personal Statement

Ma Zhong

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My major interests and passions are Computer Science and Maths. So, after completing my undergraduate education in Northeastern University at Qinghuangdao, China in the field of Computer Science and Technology, I had got my master's degree in Computer Science from University of Electric Science and Technology of China.

My primary interests in computer science are Cryptology, Cybersecurity and Artificial intelligence. My master's course "Number Theory" kindled my interest in Cryptology. During following intern project "SSL protocol", I did Research on cryptology algorithms including Symmetric-key algorithms, Public-key algorithms, Digest algorithms, pre-random generation algorithm, Implementing SSL protocol on KCXP which was a communication middle-ware and finally I Integrated SSL protocol and these cryptology algorithms. The project taught me a great deal about Cryptology and Network security. the "Padlock SDKs" project which was developing a sets of SDKs providing faster and more effective cipher suites based on cryptographic acceleration CPU instructions built in rather than the software implementation had deepened my understanding of Cryptology and allowed me see it from another perspective.

Meanwhile, I had developed "SIP Phone SDKs" project, a set of SDKs for constructing a VoIP call, had given me the opportunity to be familiar with Network Communication and SIP(Session Initiation Protocol) protocol family. The following five years, I mainly worked on embedded systems, mainly mobile phone as a senior software engineer and technical leader. This unique experience enriched me with broad knowledge in Computer Science and has given me insights of the Computer Science field.

However, the birth of my son broke my about 10 years career in computer. I had to become successively a National Civil Servant and a self-employed worker in order to take care my child. But my enthusiasm on computer science has never been extinguished. Now, my son has entered the nursery school and it is the good opportunity for me to reshape my career. Due to the long term leaving of the computer area, I think that it is a good idea to participate the postgraduate study, which can refresh my knowledge and skills related to Computer Science. Revisiting the education system with the insights will give me a better ability to reshape my career by making sure I will have the ability absorb the knowledge better.

I plan to participate Postgraduate Diploma Programme about Cybersecurity and Artificial Intelligence in graduate school. As UC have the famous Intelligent Computer Tutoring and Cybersecurity groups I feel that UC is the ideal place to study these fields. Additionally, UC offers an excellent selection of courses and supports a vigorous research program in my areas of interest. I believe UC is my best choice.

After receiving a PgDip., if possible, I plan to pursue a Ph.D or an academic career in computer science research.