Study Plan

My name is CAI. ZONGMIN (ID: 440304199905022613 Passport No. EA5631016). I was born on 2 May 1999 and I graduated from Hubei University of Automobile Technology with an undergraduate degree in Automation (Electrical Engineering). I applied for the DEC(Direct Entry Course) 15-week course in CET (Centre for English Teaching) and the Master of Electrical Engineering program at the University of Sydney and entered the 15-week DEC course on 21 March 2022, which will finish in July this year. I will arrive in Australia and enrol on my master's course at S2 at the University of Sydney. My father is a car dealer and my mother was an accountant before she retired. My father earns about AUD$100,000 in salary. Moreover, my family's income from fixed assets amounts to AUD$150,000 per year, so I believe my parents will be able to support my study time.

I entered the Hubei University of Automobile Technology in September 2017 to major in automation and graduated four years later in July 2021. After I graduated, I worked in Shenzhen Zensun Technology Ltd. in Guangdong Province. In this company, I work as an embedded hardware engineer and am engaged in hardware design and system driver development.

In the workplace, I often need to browse websites and study datasheets as a potential solution to a project as I need to find technical demos from manufacturers. On one hand, this requires a high level of professional English skills, but on the other hand, it requires a certain international perspective and the ability to understand the latest mainstream technology tendencies. It was difficult for me to cope with this task. So I decided to return to the university to learn more about the subject and improve my English skills at the same time.

There are many reasons why I chose electrical engineering. Firstly, I have loved electronics since high school and enjoyed learning about the performance of some of the electronic devices and following industry trends, and many of the technologies were fascinating for me. Secondly, I represented my university in many electronics competitions, was awarded several patents and co-published a conference paper as an undergraduate, so I consider that I have the expertise to support the career which I love.

Choosing the University of Sydney was the right decision for me. Ranked 38th in the world in the 2022 QS University Rankings and 45th in the world for Engineering and Technology, the rankings are very competitive. In my opinion, the University of Sydney is extremely prestigious. USYD is funded well for academic studies and has one of the best libraries in the entire southern hemisphere. In terms of curriculum, postgraduate students can choose to study in four sub-disciplines in Electrical Engineering: Acoustics, Speech and Signal Processing, Acoustics, Speech and Signal Processing, Advanced Power Conversion Technologies, Advanced Signal Processing with Deep Learning. The Electrical Engineering program consists of eight courses per year, each course with 6 credits. That means I need to take twelve courses (72 credits) throughout the program to be qualified for graduation. To be honest, the length of the program will neither force me to leave the industry for such a long period of time that I will lack industry interaction nor hinder me from having an experience of studying at the university again, so I think this program is a perfect match for my career plans.

The courses include Engineering electromagnetic, Safety Systems and Risk Analysis, Antennas and Propagation, Engineering & Management, electrical energy conversion systems, Computer Systems, Electronic Devices and Circuits, etc. Some of this will match the requirements of my future career which is related to communication and electronics. Two of them I believe are very important for me, Electrical Energy Conversion Systems (ELEC9206) allows for a good understanding of electrical energy conversion technologies and equipment, including transformers, DC motors, induction and synchronous machines. the other course called Antennas and Propagation (ELEC5101), which are introduced with emphasis on the important performance characteristics of the radiation field pattern and feed impedance, teaching students how to design antennas for communication modules according to international standards and to avoid electromagnetic radiation signal problems when designing circuits. In the future, I would like to work specifically in technologies such as power management and electromagnetic shielding, so these courses will be very helpful in my career development.

So there are some reasons why I choice study in USYD and Australia: First of all, the University of Sydney's master's is more competitive than other countries, with the University of Sydney ranked fourth in the 2022 QS World University Job Competitiveness Rankings. Secondly, Australia has an advantage in electrical engineering, especially in New Energy Technology and sustainable energy

technology, so that is why I came to study in Australia. In addition, Chinese master's programs are three years in length and they spend a lot of time on research-based studies without any priority on employment, which is probably too long for me. The last thing is that for me, Australia has a good climate. Canada and the UK are too cold for many people, whereas Australia has enough sunshine all year round and the temperature is very comfortable and warmer. Therefore, considering my future career, I finally chose to enter the Master's program in Sydney, Australia.

With my undergraduate and master's degree in electrical engineering, I am keen to enter large equipment manufacturing companies and communication technology companies in China. These include the famous OPPO, XIAOMI, VIVO and international companies such as Samsung, Siemens and MediaTek in the mobile phone sector. China has a more advanced electronics industry than Australia and is very competitive worldwide, so I plan to return to China after I graduated. I have been interested in the electronics industry for many years and dream of applying for both hardware engineer and embedded engineer positions, and the knowledge from my future courses will support me in applying for both positions. In China, the average R&D person in this field in a large company earns over AUD$ 60,000 per year and I would like to get that salary as well.

Because most of the courses are hosted at the Darlington campus near Central Station, therefore, I consider that the campus can be accessible by public transport. I prefer New Town actually, which also has a choice of flats provided by the University of Sydney, and there are many excellent restaurants nearby, which is more attractive for me.