

I was born into a single-parent family. Because our family has a large debt to pay, my mother was busy with her work and came home late every day. Ever since I can remember, she always hopes I can be admitted to a prestigious university and find a decent job. At the time, I didn't have any specific goal. All I knew was to get a high score in each exam so that I can compete with others. Therefore, I spent most of my childhood studying. Living up to my mother's expectations, I was admitted to the best university in Taiwan with a ranking in the top 0.7% of the national college entrance examination. However, what I didn't expect was that this turns out to be the beginning of another fruitful journey.

When I was a freshman, I had a hard time finding my passion and adapting to college life. I had been introverted and not interested in social activities in college. Gradually, I became unable to find my self-identity, and along with it, I was less and less confident in my schoolwork. Feeling frustrated, I decided to change my life by myself. After adjusting my learning attitude, I started to look for subjects that I'm interested in and desire to accomplish.

Having tried various directions, I found interest in programming and planned to become a software engineer. Through taking online courses, I quickly became familiar with common object-oriented languages and had done many side projects on my own. To learn more about enterprise-level software development, I joined **Foxconn Advanced Communication Academy** for an internship in my sophomore year. During that time, we had collaborated with Intel to develop a commercial platform for managing the 5G network infrastructures. Meanwhile, in order to earn extra money for my family, I also remotely worked with **BroadMission** on several software projects, including serverless Chatbot, customized CICD tracking tools, and home supervision system. Later, I sought a summer internship at **Cinnamon AI** to gain more knowledge about deep learning techniques, where I developed object recognition applications. From these industrial experiences, I have not only strengthened my programming skills but also boosted my ability to recognize and solve technical problems in software development.

A major life event has completely changed my career plan as an engineer. I had undergone lung surgery in my junior year. During my hospitalization, whenever my mobile phone ran out of battery, I had difficulty untangling the charging cords due to the drainage tube on my chest. It was not until then did I realize how important wireless techniques are. Motivated by this event, I aspire to develop more convenient wireless technologies, making ubiquitous wireless connectivity become a reality. After reflecting on my past work experiences, I realize that it requires solving the problem fundamentally, instead of manipulating the well-known tools as I did before, to achieve my aspiration. Since then, I have made up my mind to pursue research in the area of wireless communication and networking.

To delve deeper into wireless research, I joined Prof. Hung-Yu Wei's **Wireless Mobile Network Lab**. Though at the beginning I only gave the weekly reports of my literature review, I enjoyed the process of systematic thinking and solving academic problems. Fortunately, my idea was approved by Prof. Wei and I was allowed to conduct my first independent research project. Since at that time my idea didn't have any mathematical basis, I put a lot of effort into surveying related literature from various aspects to support my design. After investigating for more than a year, I completed its mathematical model and my paper was submitted for review.

This experience has laid the rigor foundation for my research methodology and made me more convinced that a career as a researcher is my life's ambition.

Even after working hard for a long time, my first paper submission was rejected in early 2020. Though being stressful and frustrated, I was still eager to share my research results and contribute to the field of wireless networks. After carefully pondering the reviewer's comments, I had redesigned my experiment and spent three months entirely revising my manuscript. Eventually, my work was accepted by IEEE Transactions on Multimedia and was published on 11/25/2020. The experience of being rejected ended up providing me with profound insights into research. I believe doing research is a process of identifying problems, verifying solutions and stating contributions. I also believe that even if I encounter any obstacles and challenges in pursuing research, I can ultimately overcome them with my perseverance and determination.

I was officially hired as a research assistant in my senior year as the only undergraduate in the Lab. After completing three research projects and co-authoring seven papers in top journals/conferences, I would like to continue my research in wireless communication and networking with graduate training. My long-term goal is to become a researcher in the laboratory of a high-tech company so that I can improve the financial status of my family while pursuing my passion. With both distinguished faculties and integrated courses in your department, I believe pursuing my PhD in your prestigious program will be the best choice to achieve my goal.