

## Statement of Purpose

After the high school University of Southern California, USC Department of Computer Science I was admitted to the Faculty of Engineering at Kasetsart University. I chose the engineering field because I was inspired by my father, who was an expert in radio and video broadcast engineering and undertook nationwide broadcasting station projects of the National Broadcasting Services of Thailand. After the freshman year, all students had to select a major and I chose my major in Electrical Engineering and then minor in Communications Engineering because I wanted to be like my father. Unfortunately, during the first three years, I was so unmotivated that I neglected to attend classes or prepare for examinations and my grades fell down drastically. However, at the beginning of my senior year, I started to realize that my academic status was precarious because my accumulated GPA was still lower than 2.00, which could force me to leave the university. I could not afford to let my parents down. Moreover, I began to realize that I was studying in college for the last year before I had to apply for a job. My job application could not be attractive with this GPA level. Therefore, I decided to change my study behavior by attending classes and reading books to prepare for examinations. Thanks to the regular class attendance, I was excited by engineering subjects I was studying. For example, in Satellite Communications, I learned how to point a satellite dish to a particular satellite given its positions and how to calculate link budgets so that the connectivity could be maintained without interfering adjacent channels. Of my gratification, I received at least two As from the two major subjects - Satellite Communications and Electrical Engineering Analysis I; the latter included the topics of complex numbers and linear algebra. As a result, my semester GPA leaped from below 2.00 to above 3.00. This success was non-trivial to me because it made me believe in my academic latent potential if I paid attention to the study. For the next semesters, my semester GPAs never fell down again. Unfortunately, I completed the Bachelor of Engineering with only 2.49 cumulative GPA.

After graduation, I had to apply for a job to earn a living and support my family. I had worked for three companies until I got the job at Aeronautical Radio of Thailand or Aerothai, a state enterprise under the Ministry of Transport, Thailand. Probably because I held a certificate of Network Design and Implementation (Cisco), in addition to an academic background in Satellite and Wireless Communications, I was selected to work at the air traffic data systems engineering department. At the department, engineers design and implement information systems so that they can provide essential data to support air traffic control operations, which inherently take place 24/7. As a result, we often design systems to deploy master/standby architecture; that is, whenever the master is down, the other takes up to be the master, and our services continue to serve. Moreover, we select high-end computer server hardware such as HP servers and Cisco network equipment and state-of-the-art computer software such as Oracle database management and VMware virtualization technology. As a result, our systems' availability is able to reach the target of 99.99%, which makes them one of the most reliable data hubs in the region. All these products are proprietary of the top technology companies in the United States. These successful products are a paragon of USA's product innovation and commercialization, which motivates me to go to study in the US so that I can witness them myself and learn their success factors.

Not long after I started work for Aerothai, did I decide to apply for a Master's degree program. As I had to work mostly with computer systems, my interests undoubtedly fell into computer science and engineering. At the moment, I had two main categories to choose from - thesis or non-thesis programs. Although thesis-oriented Master's degrees intimidate many students because the programs seem to take longer to graduate and to take greater time and effort from the students, I chose to study in the thesis-based Master of Science in Computer Science at Computer Engineering Department, Chulalongkorn University for three main reasons. First, I realized that research experience would help me get into a terminal Ph.D. program. Second, this graduate program provided me with a combination of theoretical knowledge and practical applications of computer science, from Theory of Computation and Computer Algorithms to Artificial Intelligence and Distributed Systems. Third, the department offered the part-time Master's degree program which suited my needs at the moment as I could not afford to study full time. However, the graduation requirements of the part time program were identical to those of the full-time program except courses were scheduled on weekends. Overall, this curriculum requires students to complete several graduate-level courses, to publish academic papers, and to document and orally defend the thesis work, all of which significantly gave me great academic and research experience

in computer science.

During the first year of study at the Computer Engineering Department, I

Take a look at USC... which course excites you which research projects inspire you and what professor

Ramesh Govindan ... refer to paper

Minlan Yu ... refer to paper

Ethan Katz-Bassett ... refer to paper

What do you plan to do at USC?

Career goal in 5 years and 10 years

Thanks the admission committee

Kittipat Apicharttrisorn