

Statement of Purpose

Compile, run, error. A process all too familiar to a computer scientist. The hope of a working program amidst a seemingly endless amount of errors has driven me throughout my undergraduate career. My undergraduate studies at the University of California, Santa Barbara provided me with a community of incredible professors and collegians. My community was built through working alongside professors in office hours and collegians in study groups. Fortunately, they reassure my hope in the process. In pursuing a master's degree, I desire to deepen my knowledge of computer science and my relationships within the UCSB community to equip myself for a career in software engineering management.

My fondness of computer science began my junior year of high school. As I learned how to program in Java, I was unaware of how captivating the field can truly be. A love for logic, problem solving, and leadership developed early in my college career. In the course Data Structures and Algorithms, I was fascinated by my problem-solving abilities when optimizing recursive algorithms through dynamic programming. A combination of the courses Computer Architecture and the Philosophy of Critical Thinking further developed my perspective of logic as more than the development of a mathematical proof. The application of logic ranges from the logic gates controlled by the smallest units in Boolean algebra to formal techniques within the English language. Most notably, a group project course taught by Professor Krintz gave me the opportunity to become a project lead and explore my leadership alongside programming. Over 10 weeks, I was selected to lead a group through the creation of a project called Magic Minutes. Teaching ourselves new technologies such as TensorFlow, Selenium, and Travis-CI, we were able to display predictive wait times for a theme park on a ReactJS web interface and iOS application; a remarkably ambitious project for five sophomores in an undergraduate computer science class. We ran real time data through a machine learning model whose predictions were stored in a database accessed by a web API and displayed on a ReactJS site and iOS application. It was a fundamental course in my undergraduate education due to it enabling of creativity and innovation for students and establishing my career objective to become a software engineer manager. The cumulation of these specific UCSB courses is central in my decision to pursue the project plan with the major area of Systems for my master's degree.

With only a small subset of computer science courses left to take, my passion to learn computer science is not satisfied with the completion of my undergraduate career. I am eager to

add depth to my understanding of the field. In pursuing a master's degree, I hope to fulfil my desire through graduate coursework, direct research, and a final project. The systems major area appealed to me because of the associated coursework. The specialized topics, such as Computer Security, Software Engineering, and Mobile Computing, instill the complex knowledge that I am yearning for. In addition, research in Programming Languages and Software Engineering alongside renowned researchers will aid in my pursuit of education. I am inspired by the prospect of continuing collaboration with Professor Krintz through direct research. Also, through the creation of a final project, I will gain real world experience as preparation for my professional career. The chance to learn from each course I take and each person I meet is an incredible opportunity within the UCSB community. With determination fueled by hope, I am a driven candidate who will contribute analytics and leadership to the UCSB graduate program.