

## Fast Track Biography

Jonathan Lam

Class of 2023

My name is Jonathan Lam and I am studying electrical engineering at UCLA. I am from Waltham, Massachusetts, a suburb outside of Boston. During my time at Waltham High School, I had little exposure to programming and circuits, prompting me to explore my curiosity through Youtube and seek opportunities outside of school. Following almost every school day, I would have hockey practice, or track practice, or a lifting session (I love to play sports and exercise). After I got home, I would watch videos about a wide range of topics such as the intricate syntax of programming or the process for creating a self driving car through the creation of hardware and software components.

This new fascination that had lead me to an internship at Brandeis University, interning at the Ashton Graybiel Spatial Orientation Laboratory under Vivekanand Vimal. For two summers, I worked with two other students on designing and creating a prototype to assist with his research about how he could possibly augment the human to receive more external information from our surroundings. At the culmination of the first summer, we had successfully created a working prototype with Arduino and CAD, utilizing an accelerometer and a vibrating necklace. The purpose of the prototype was to alert the user when they deviated too far from parallel to the ground, and let them know which direction they needed to move to correct themselves. It was created with the intention of being used by people with deteriorated vestibular systems(internal balance systems). During the following summer, we tested the actual use of the prototype and altered the code and physical design to better suit his research. Through this amazing experience, I confirmed for certain my love of electrical engineering.

Now at UCLA, I am a member of IEEE OPS, and I plan on joining other clubs in the future. In IEEE, I have the chance to expand on my knowledge of circuits, improve my soldering skills, and learn about new machines that I never knew existed such as potentiometers. I am thrilled that I will be spending the next four years at UCLA as a member of the Fast Track program, meeting new friends and preparing myself for industry as an aspiring electrical engineer.