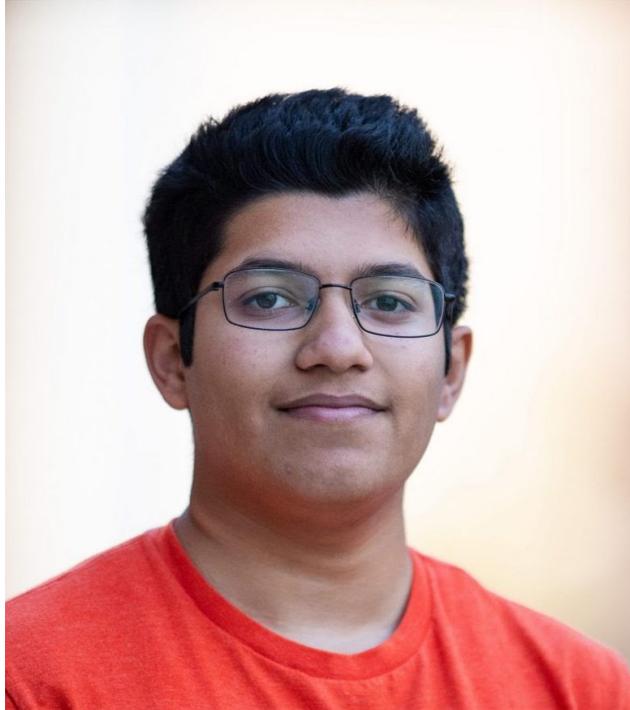


# Neil Kane

Student of the Month Interview by Joshua Mathew



## Where are you from?

I grew up in the Bay Area and went to Cupertino Highschool.

## What classes have you taken so far at UCLA?

So far notable classes I have taken are ECE 3, ECE 102, and ECE M16 with the honors component. M16 was particularly interesting because I had to learn how to use Verilog which is a software program to model digital circuits.

## Are you a part of any Clubs?



In my Freshman year, I was a part of IEEE Micromouse. It is essentially a year-long project where we design a small robot mouse that is able to find its way out of a maze. I learned a lot about PID and gained skills such as designing a PCB, soldering components together, and general programming. I found that this club project was a particularly good precursor to taking ECE 3.

## Why EE?

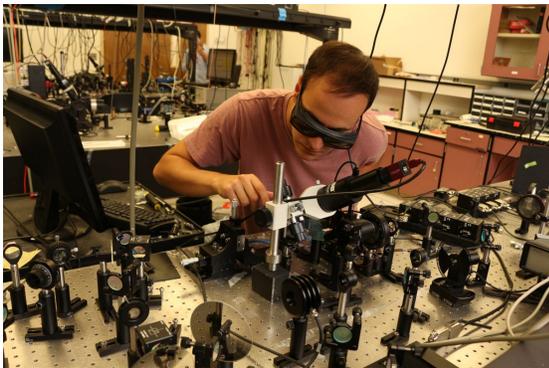
In middle school, I was really interested in math. I participated in competitions like Math Counts and the AMC, and I was even the president of our middle school math club. At that point, I figured that I was at the very least “STEM-oriented”. In high school, however, my passion for math fell off in a sense and I noticed that I was looking for something with more purpose. Soon after this though, I took AP Physics with a





professor that I really liked. When we got to the Electricity and Magnetism section in our class he always had cool demos and projects to show us. He inspired me to put in a lot of effort into my own final project for the class. When it came to the time to decide what to pursue in college I looked back at that experience and realized how much I enjoyed it and combined with the fact that I always liked mathematics and was relatively STEM-oriented anyways, I chose to study Electrical Engineering.

### Fast Track Research?



Because of COVID, I chose to do my research internship during the academic year so I just recently started working with Professor Mona Jarrahi in the Terahertz Electronics Lab. At a simplified level, we have a big machine that can send terahertz pulses to an object and detect the pulse that was bounced back. We use the frequencies of the reflected waves to form a 3D image of the object that was detected. However, the actual imaging portion of this process takes a lot of computing and time, even for a modern-day CPU. I

am particularly working on a way to process these signals using a GPU instead in hopes that we can do this analysis quicker and more efficiently. At first, starting this project it was a little different than what I was expecting as it felt more CS than EE. However, as I understand more of what we are doing here I am looking forward to the work I will be doing.

### How has your experience been so far with online classes?

Controversially, I am actually a big fan of the online system. The main benefit I get is the re-watchability of lectures. It's much easier to pay attention in class when I am not so focused on getting down everything the professor is writing because I know if I have a gap in my notes I can just rewatch the lecture. The only thing that I can think of that I don't get from online classes that I would if they were in person is the professor to student interactions like asking questions and such. But even then, in most classes there are TA's or other students in the chat that will respond to your questions if you ask them. I didn't always have this perspective though, in Spring quarter I remember particularly feeling unmotivated to



go to attend my online lectures. However in the Fall once I started taking better notes, I naturally started to pay attention more and became more driven to participate online.

**Favorite sandwich?**

This isn't really a sandwich but Avocado Toast & pickles.

