

Jeffrey Weng

UCLA Fast Track To Success: Class of 2026

jeffwengbruin04@g.ucla.edu

A Little Bit About Me

Hi, I'm Jeffrey! I was born and raised in San Diego, California, and attended Rancho Bernardo High School. I'm currently interested in radio-frequency applications from both the communication theory and microwave engineering perspective, but I'm also hoping to further navigate potential interests in areas such as semiconductor physics, nanoscale manufacturing, and power electronics. In my free time, I love rock climbing (as pictured on the right), playing guitar, and just being out in nature - as of recent, I've been practicing a lot of bossa-nova and R&B on my guitar and training more seriously for climbing (hoping to go back to Red Rocks to tackle harder boulders and do lead climbing at Malibu Creek).



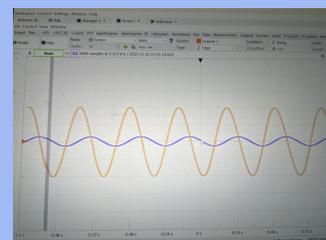
Why UCLA EE?

I can't say that I always knew that I wanted to be an electrical engineer, or that I wanted to attend a particular university for my studies, but I've always loved to create my own things and overcome challenges to bring them into fruition, be it model figurines, LEGOs, websites, or bots on messaging apps to mess with my friends. I wasn't even fully sure about pursuing EE when applying to UCLA, but my first visit to the campus told me all I needed to know: I saw a vibrant community of wonderful people with the drive and determination to become the best in what they do, and I knew that I would be satisfied with my decision to come here. Since then, my passion for EE has only grown, as I've found beauty in being able to interact with every part of the electrical pipeline. Whether it be going from solving for frequency response in Fourier domain to observing it with an oscilloscope in a RC low pass filter or working with light emitting diodes and simultaneously deriving bandgaps with the time independent Schrodinger equation, being here at UCLA ECE has given me the breadth and depth to appreciate electrical engineering for what it really is: innovating creative, elegant, and technical solutions to problems and limitations with technology. Moreover, having rare opportunities such as hearing Dr. Leonard Kleinrock speak on his experience in developing queuing theory and ARPANET has greatly inspired me to blaze my own trail in the field of electrical engineering. So, while I wasn't always sure about UCLA EE, I find great joy in the realization that I have made the best decision in coming here.

Right: My bot written using Discord API (I promise it stops when you tell it to, it was feeling rebellious this time)



Below: Input and output signal of an RC circuit measured with an oscilloscope (output is attenuated by almost exactly the frequency response!)



A cute little lamb!

How am I involved at UCLA?

Currently, I am involved in IEEE Outreach, where I volunteer in workshop initiatives and explain what pursuing electrical engineering entails to community college and K-12 students, which has exposed my breadboarding skills - I mean, not that I forgot which end of the LED was the positive terminal (in all seriousness though, it has taught me a lot about how to teach engineering concepts to others and articulate my journey into EE to help younger students decide what they want to pursue). Additionally, I am part of IEEE's Digital Design and Verification project, where I am programming FPGAs in System Verilog using Quartus and Questa (I'm a little behind, but I promise I'm catching up 😊). Last but not least, I am part of the UCLA climbing team, where I go on outdoor trips and camp together with friends as much as I can.



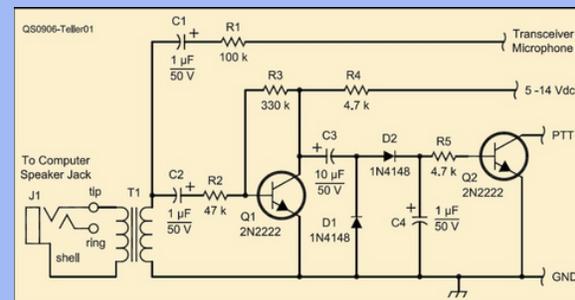
What are my educational and career goals?

At the moment, I am interested in pursuing my masters here at UCLA and continuing into industry, possibly doing research and development in RF technology. However, I am also interested in the possibility of pursuing a career in semiconductor devices, which would lead me to consider a PhD to provide a full depth of knowledge of the discipline. I've found these to be greatly interesting areas to work in, but I will keep an eye out for any other topics that may surprise me in the future.



What projects am I taking on in my own time?

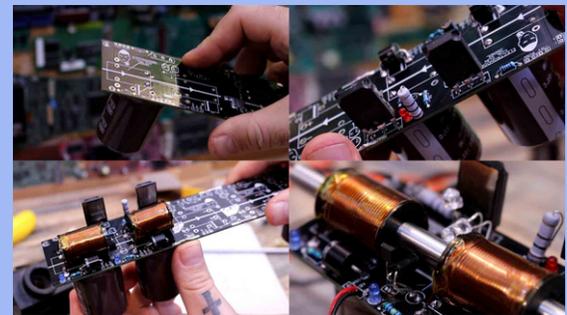
In my free time, I really do enjoy rock climbing - I'm currently training to reach my goal of climbing at least V10 grade outdoor boulders before I get too old to keep improving physically. In terms of EE related projects, I'm currently in the process of sorting out the components that I'm going to need for building a ham radio and a magnetic coilgun (hoping that I can yink some free old parts that my dad has collected over the years).



FM transceiver (what I'm hoping to build)

Conclusion

I hope that this has provided a little bit of insight about me and my life here at UCLA, and I would like to emphasize how blessed I feel to have met all of my amazing friends, faculty, and Bruin family during my time here so far; if it weren't for them, I genuinely would not have made it as far as I have. Go Bruins!



Coilgun PCB assembly (courtesy of Electronoobs)

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