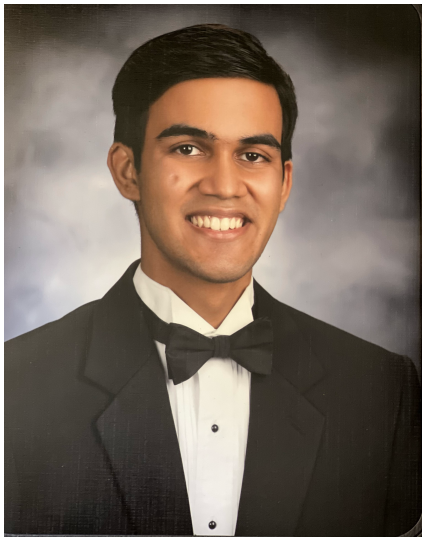
Arunan Elamaran



I am Arunan, a Class of '26 Electrical Engineering Major from the Bay Area!

Why did you choose UCLA ECE ?

I chose UCLA ECE because of the multitude of opportunities it has to offer. The ECE faculty brings a diverse set of skills that students can learn from while exploring career paths. Additionally, UCLA Engineering has a great range of clubs to participate in that have scopes in a variety of areas. UCLA also offers a great balance between class work and the pursuit of one's own interests outside of classes (such as through clubs). Having this balance allows me to gain the theoretical knowledge needed to understand complex topics while also applying that knowledge to projects with real world applications. Most importantly, being part of the Fast Track program gives me a great community (through which I have made many friends) and also allows me to build myself up to a greater potential with my fellow classmates and supporting faculty than I would otherwise be able to elsewhere.

How are you involved at UCLA?

Before coming to UCLA, I pursued a research project along with 5 others under the guidance of Professor Kaiser in which we created a gait classification system that could correctly classify 4 types of motion (stand still, normal/level walk, stair ascent, and stair descent) with 90+% accuracy. I hope to further my knowledge in topics that I am interested in by pursuing more research!
I am also part of two engineering clubs, IEEE and Bruin Formula Racing. In IEEE, I am part of the Micromouse project in which I have to design a mini-robot (including the circuits and PCB), to navigate through a maze. I chose this project to pursue my lifelong passion in robotics. At the end of the year, my team and I get to compete with the robot we make against the other teams to solve the maze the fastest! I have already learned much about circuit and PCB design, and also maze solving techniques/algorithms.
Bruin Formula Racing is the other club that I am deeply committed to. I am part of the EV subteam that was created this year to start researching, planning, and designing the transition to EV next year. Within the EV subteam, I am part of the Tractive System subteam (for which I am also the current lead as Responsible Engineer), which focuses on everything high voltage. Such components include the motor, inverter, high voltage cabling, and the cooling required. This has been a great and rewarding experience as I get to work on a complicated, industry level project while still in university. Additionally, being the first set of people to be in the EV team means we get to set the future for the club!

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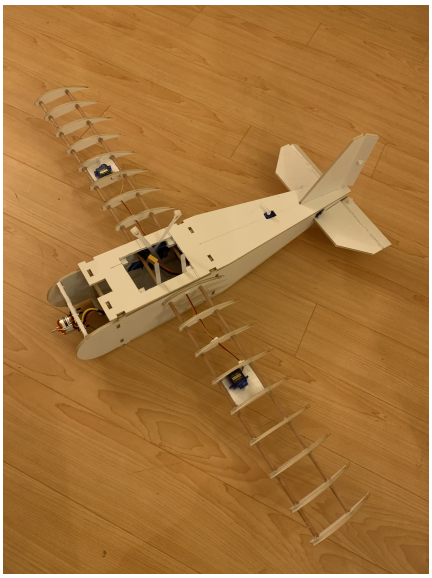
What are your educational and career goals?

I am interested in the fields of robotics and IoT. Within robotics, I am especially passionate about control systems and machine learning, both of which allow a robot to take in sensor data from its surroundings, process that input, and then turn it into the appropriate/desired output. I have developed this interest through the Micromouse Project in IEEE and also while competing in robotics competitions in highschool.

I aspire to be an engineer at top aerospace companies or organizations, working on robots and systems that will aid in space exploration. I also look forward to working in the EV and autonomous car industry, and also in companies that create devices/robots that increase people's welfare around the world.

What projects are you taking on in your own time?

Besides being interested in electrical/computer topics, I also enjoy creating hands-on mechanical and aeronautical oriented projects. Back in highschool, by taking engineering design courses, I learned how to plan designs, create them, and then iterate until they achieved the desired end result. Wanting to create a bold project that also addressed my lifelong interest in aerospace, I decided to make my own RC plane from scratch during my senior year of highschool. With most of the plane assembled (excluding the wing monokote wrap), I hope to finish it soon and see it fly!



Featured above is a picture of the current progress so far!