WARNAKULASURIYA FERNANDO

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EDUCATION

University of California, Los Angeles (UCLA), Los Angeles, CA Expected August 2023

Bachelor in Electrical Engineering

- Relevant Course Work: Systems and Signals, Semiconductor Physics, Circuits theory, Logic Design

Cypress College, Cypress, CA May 2021

Associate in Physics and Maths

- GPA: 3.95 / 4.0.
- Presidential Honor Roll, District Management Association Scholarship.
- Relevant Course Work: Linear algebra, Differential Equations, Electricity and Magnetism, Thermodynamics and Kinetic Theory, and Quantum Mechanics.
- AS-T Mathematics, AS-T Physics, AA Math & Science.

RELEVANT EXPERIENCE

UCLA Lemur Lab, Los Angeles, CA

Undergraduate Research Intern January 2022 - Present

- Indulged in fast prototyping using Solidworks to design, 3D print to assemble mechanisms for an autonomous blimp.
- Coded control system and designed logic for an autonomous blimp using C and Python.
- Soldered micro circuits and debugged errors in hardware components using unit testing and other methods.

2021 Hack at Transfer Bridge, Los Angeles, CA

Team Member August 2021 - August 2021

- Collaborated in a team of 3 to assemble a autonomous car with unloading mechanism.
- Analyzed behavior of parts when forces are applied using Solidworks FEA feature.
- Programmed manual override, control car using bluetooth module and Remote controller, using Python and C based coding.
- Built team website using CSS, Java Script, and Html, showcasing project overview and delivered a design review to a panel of judges.

Phoenix Sounds & Lighting, North Hills, CA

Sound Engineering Technician January 2019 - August 2021

- Performed maintenance monthly on latest AV equipments and softwares.
- Set up, troubleshoot, and test musical and other audio equipment for over 50 live shows.

California Polytechnic State University, Pomona, CA

Research Experience for Undergraduates Intern June 2020 - August 2020

- Improved a cost effective method to reconstruct a three dimensional scenery using RGB-D sensors, Python and Open3D Library.
- Collaborated with PI and a graduate student to identify and resolve 2 errors in the Open 3D library.
- Presented results of the research at 6th Annual Creative Activities and Research Symposium.

PROJECTS

Engineering Design - Electrocardiogram, Los Angeles, CA

Team Lead September 2021 - December 2021

- Designed and soldered PCB to connect two LCDs, wifi module and power source to make a compact self sufficient ECG.
- Utilized SolidWorks software to design casing for ECG and developed those designs using 3D printing and laser cutting.
- Programmed LCDs, to display heart signals, heart beat and battery percentage (custom characters), and wifi module to transfer data to a database.

Robotic Programmable Car, Los Angeles, CA

Team Lead September 2021 - December 2021

- Calibrated eight sensors and processed those sensor data values to find optimal proportional component (Kd), derivative component (Kp) and speed for better steering through the track.
- Coded the car to follow a track using C based programming.

LEADERSHIP EXPERIENCE

STEM2 Cypress College, Cypress, CA

Student Liaison May 2020 - May 2021

- Organized one hour Socratic sessions about proper etiquette, networking and college resources.
- Facilitated communication between professors and students by organizing social activities.

SKILLS

- Technical: MATLAB, Python, C++, Octave, Machine learning, Microsoft Office Suite, Arduino, Solidworks, CSS, Html, Open3D, Soldering, GitHub, PCB design.
- Bilingual: English, Sinhala.