KATHERINE NASIF

Phone: (650)272-1269   1503 Gilmore Street
katnasif@ucla.edu   Mountain View, CA 94040

COMPUTER ENGINEERING SOPHOMORE INTERESTED IN SYSTEMS ENGINEERING & MECHATRONICS

EDUCATION

BS University of California, Los Angeles
      Computer Engineering   Expected June 2024
      Cumulative GPA: 3.8/4.0

RELEVANT EXPERIENCE

Founding Member/President, UCLA Femmebots 2021-Present
- Solo mechanical designer on an all women's 15lb combat robotics team.
- Practiced Solidworks/AutoCAD for CAD/simulations, learned advanced mill/lathe operation, gained Github and GrabCAD experience for hardware and software integration.
- Learned to build and integrate complex robotic systems in a high-pressure team environment

Micromouse Project, IEEE at UCLA, October 2020- March 2021
- Developed a featherweight, maze-solving robot as a part of IEEE at UCLA.
- Practiced PCB design in Autodesk EAGLE, PID loop implementation, CAD in Solidworks/Autodesk Inventor, maze-solving flood fill algorithm in C.
- Practiced resource-conscious algorithm implementation on the STM32Cube Nucleoboard,

Wearable Motion Detection and Alarm System for Post-Surgical Shoulder Recovery with EmbeddedML on STM Sensortile, Project for Engineering 96C, Fall 2020
- Developed a wearable shoulder motion detection system to aid in post-surgical recovery with a built-in alarm system using embedded machine learning.
- Practiced resource-conscious C programming on the STM32 sensortile board

Beam On Technology, Full-Time Laser Operator, Summer 2020
- Fulfilled solder-stencil orders for hundreds of different Silicon Valley companies daily.
- Managed four high-power laser machines and mastered the PCB manufacturing process.
- Learned high-power laser operation, programming, and maintenance.

PROFESSIONAL AFFILIATIONS

Secretary at IEEE Branch at University of California, Los Angeles 2021-Present
- Managed alumni relations, writing a weekly newsletter that gets sent to over a thousand affiliates each week.
- Managed the Alumni Mentorship program, a program that connects current UCLA undergraduates to ECE alumni in their fields

SKILLS AND INTERESTS

Solidworks, Python, C, C++, Java, STM-ARM Programming, EmbeddedML/Machine Learning, Mechatronics, Prototyping, Digital Design, Robotics, Computer Vision with OpenCV, Documentation, PCB Design, Closed Loop Control, Computer Aided-Design, AutoCAD, Fusion 360, Autodesk EAGLE, 3D Printing, Manufacturing Processes, High-Precision Electronics Manufacturing, MATLAB, NumPy, Algorithms, Signals Processing, Systems Engineering, Serial Communication Protocols, LaTeX, Lidar, Motors