Navid Mir

San Jose, CA | (408) 505 - 6492 | nmir@ucsb.edu | navidmir.com | https://www.linkedin.com/in/navidmir/

Education

ELECTRICAL ENGINEERING B.S. | *UNIVERSITY OF CALIFORNIA, SANTA BARBARA (UCSB)* JUNE 2021

- 4.0 GPA
- Emphasis on *Embedded Systems* and *Signal Processing*
- 6 x Dean's Honors List for Engineering, Engineering Honors Student, Tau Beta Pi Honors
- Activities: IEEE UCSB Chapter, Rocket Project Laboratory, Intramural Basketball, Pop's Orchestra

Work Experience

ELECTRICAL ENGINEERING INTERN | *VIVAX-METROTECH* JULY '19 – SEP '19

- Tested and optimized RFID transmitter circuit to attain required antenna output power while maximizing efficiency
- Used Altium Designer for PCB design of several configurations of the RFID transmitter circuit
- Designed efficient high voltage switching power supply for D-class amplifier, controlled with C code on ARM-based MCU

MACHINE LEARNING INSTRUCTOR | *IDTECH* JUNE '19 – JULY '19

- Taught an introductory machine learning with Python course to a class of 10 high school students
- Instructed students about neurons, neural networks, and supervised learning algorithms
- Led two projects both involving training a neural network to perform linear regression: one with a self-defined neuron class and one using the TensorFlow library

Projects

A portfolio of my projects can be found at my website: navidmir.com

LIQUID OXYEGEN/METHANE ROCKET | *ROCKET PROJECT LABORATORY AT UCSB* APRIL '19 – PRESENT

- Work on Avionics sub-team of 30-person group designing a rocket to compete in Spring 2020 FAR MARS competition
- Design the ground systems, which includes the ground computer (running filtering algorithm on sensor data) and RF communication between ground and rocket to allow sensor data to be sent from rocket to ground

ELECTROVIBRATIONAL DISPLAY RESEARCH ASSISTANT| *RE TOUCH LAB* FEBRUARY '19 -MARCH '19

- Tested and analyzed high voltage converters needed for capacitive touch displays that mimic textures

LED CUBE DISPLAY | *IEEE UCSB CHAPTER* OCTOBER '18 – FEBRUARY '19

- Assembled 4 x 4 x 4 LED cube and wrote Arduino microcontroller code to make designs display on the cube

FACIAL-RECOGNITION SMART LOCK | *SB HACKS V HACKATHON* JANUARY '19

- Designed and put together hardware and worked on software integration of a Raspberry Pi that accesses GCP server for a facial-recognition program response to open a lock for our team hackathon project, "openSesame"
- Awarded "Best Security Hack Award" sponsored by Arthrex, Inc.

PLASMA SPEAKER | *IEEE UCSB CHAPTER* OCTOBER '17 - MAY '18

- Assembled circuitry involving signal generators, amplifiers, and transformer to produce sound with high voltage plasma arc

Skills

SOFTWARE: Verilog RTL programming, Quartus II and Xilinx FPGA simulation, C, C++, Arduino programming, Altium Designer PCB design, MATLAB, Python (TensorFlow, Socket), Java, Jupyter Notebook, Linux, SolidWorks CAD, LTspice circuit simulation

HARDWARE: Designing and analyzing digital/analog circuits, microcontroller circuits using Raspberry Pi, microprocessor circuits using Arduino, through-hole and SMD soldering

Awards

BOEING SCHOLARSHIP | *UCSB COLLEGE OF ENGINEERING SCHOLARSHIP COMMITTEE* JANUARY '19

ARTHREX BEST SECURITY HACK AWARD | *SB HACKS V HACKATHON* JANUARY '19

ENGINEERING WRITING EXCELLENCE | *UCSB WRITING PROGRAM* MAY '18