Navid Mir

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Education

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

- 4.0 GPA
- Interest in Embedded Systems and Nanofabrication
- 6 x Dean's Honors List for Engineering, Engineering Honors Student
- Activities: IEEE UCSB Chapter, Intramural Basketball, Violin in Pop's Orchestra

Work Experience

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

- Helping to design, analyze, and test an RFID transmitter circuit to attain required antenna output while maximizing efficiency
- Using Altium to assist with PCB design of several configurations of the RFID transmitter circuit

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

- Taught an introductory machine learning course to a class of 10 high school students. I instructed students about neurons, neural networks, and their basic functions. I covered supervised learning algorithms and had students work on 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

GROUND SYSTEMS ENGINEER | *ROCKET PROJECT LABORATORY AT UCSB* APRIL '19 – PRESENT

- Working on the Avionics sub-team of the 30-person project to design a rocket to compete in the FAR MARS competition in Spring of 2020. My role is to design the ground systems, which includes the ground computer (running Kalman filtering on rocket sensor data), launch control, and emergency ventilation control. [http://www.rplatucsb.com/index.html]

ELECTROVIBRATIONAL DISPLAY | *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 11 – 13, 2019

- 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"
- [https://devpost.com/software/sbhacks-gz8oix]

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: C++, Java, MATLAB, Python (Matplotlib, NumPy, TensorFlow, Socket), Arduino programming, Quartus II FPGA simulation, SolidWorks CAD, LTspice circuit simulation, Altium PCB design

TECHNICAL: 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 28, 2019

ARTHREX BEST SECURITY HACK AWARD | *SB HACKS V HACKATHON* JANUARY 13, 2019

- Presented for Facial-Recognition Smart Lock "openSesame"

ENGINEERING WRITING EXCELLENCE | *UCSB WRITING PROGRAM* MAY 22, 2018

- Presented for my recommendation report for commuting UCSB students