TAHA HUSSAIN

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EDUCATION

Oregon State University, Corvallis Oregon   Expected Graduation: Fall '20
  Bachelor of Science, **Electrical and Computer Engineering**, Minor in **Computer Science**;   CGPA: 3.2
    ● **HONORS:** Recipient of OSU Provost Scholarship for Excellence.
Relevant Courses
Electrical Fundamentals, Digital Logic Design, Electronics, Junior Design, Senior Design, Signals and Systems, Data Structure, Computer Networks, Operating Systems, Technical Writing, Power Electronics.
Ongoing: Assembly Language, Electromechanical Energy conversion, Electric and Hybrid Vehicle.

TECHNICAL SKILLS

  ● Programming Languages: C, C++, Python, System Verilog, Matlab, Arduino.
  ● Tools: Oscilloscope, Function Generators, Power Supply, DMM and Microcontrollers.
  ● Software Tools: Microsoft Office Suite, ModelSim, Atmel Studio, Lattice Diamond, LTspice, KiCad, Simulink.

PROJECTS

Portable Solar-Panel
  ● Made and designed a DC to DC Power Supply using buck-boost Converters on a PCB.
  ● Designed and made a Charge control using Transistors, MOSFET, and Relays.
  ● Conducted tests for operational ranges of the power supply and charge controller.
  ● Develop and implement GPS Module and extracted Data using Arduino.
Scara (Selective Compliance Articulated Robot Arm)
  ● Control conversion from G-Code to Stepper Motors through an Arduino and motor controllers.
  ● Mechanical design and calculations to make the motor move in order to complete tasks.
  ● Engineered circuit board and designed PCB.
3 Band LED Audio Visualizer
  ● Used Matlab and LT-Spice to simulate and design active low pass/high pass filter and comparators, operating between 100 and 10,000 HZ.
  ● Constructed hardware to house electrical components, and soldered a circuit board to configure LEDs, and implement an op-amp powered microphone.
Sensor's Calibration with Matlab
  ● Calibrated data from a thermistor and a photocell on Matlab by using the Arduino device.
  ● Plotted a live graph of the output in Matlab.

WORK EXPERIENCE

Student Experiences and Engagements, OSU
Peer Educator   Fall '17 – Fall '19
Senior Peer Educator   Fall '19 – Present
  ● Manage administrative processes and communication related to support ~450 student clubs.
  ● Facilitate Leadership workshops and consultation with ~300 students every year.
  ● Lead projects regarding club approval and recognition.
  ● Manage allocation of club funding to ~400 organizations from the budget of $250k.

EXTRACURRICULAR EXPERIENCE

Pakistan Student Association, OSU   Fall '16 – Fall '19
Vice President
  ● Organized the very first Pakistani Night in OSU for 200+ students, and other events to promote Pakistani culture.
  ● Arranged logistics for events, improving strategic planning and problem-solving.

Robotics Club, OSU   Winter '17 – Spring '19
Active Member
  ● Managed a team to 4 to create power systems board for Mars Rover Team learning about the step-down voltage regulator and Buck/Boost Converters to power different components with different voltages.