

## **Amir Alexander Abed**

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### **EDUCATION**

**UNIVERSITY OF CALIFORNIA SAN DIEGO** 9500 Gilman Dr., La Jolla, CA 92093

Bachelor's degree in Electrical Engineering, Machine Learning Depth, June 2022, GPA: 3.4

### **WORK EXPERIENCE**

**Agnetix / Sensor Development Intern and Full-Time Electrical Design Engineer**

June 2021 - December 2022, 7965 Dunbrook Rd STE I, San Diego, CA 92126

- PCB design for sensor boards in Altium and enclosure design in Solidworks and Onshape
- Sensor development with soil, temperature, humidity, light, airflow, and lidar sensors
- Python code using matplotlib and pandas for data analysis of sensors to determine accuracy to utilize the most efficient and cost-effective tools in order to maximize profits
- Hands-on work with raspberry pis and microcontrollers such as PIC32s from Microchip

**RF Precision Cables / Technical Assistant**

June 2016 - August 2020 (During Summer), 1600 S Anaheim Blvd F, Anaheim, CA 92805

- Hands-on work with the assembly of radio frequency cables, specifically coaxial cables
- Testing cables for function and shipping them to companies worldwide

### **SKILLS**

- Languages: C, C++, Python, MATLAB, Java, Javascript, HTML, CSS, Processing, Verilog
- Utilities: Microsoft Office, SDR software, ESP32s, RFID scanners, sensors
- Technologies: Linux, Docker, MySQL, Arduino, Raspberry Pi, Soldering, Breadboarding
- Design: Altium, Solidworks, MPLAB IDE, Vivado, Quartus Prime, Embedded Systems

### **ACTIVITIES, AWARDS, and GROUPS**

- IEEE member and group project participant, 2 years in QP (Quarterly Projects)
- IEEE QP++ Winter quarter 2020 competition winner (ENLIGHTEN)
- IEEE QP Fall quarter 2019 competition runner-up (!ForgettaBoutIt)
- COSMOS Cluster Summer Program Assistant helping students transition into college

### **PROJECTS**

#### **ENLIGHTEN**

- Automated home light switches that turn on when person is detected in room using tensorflow, ESP32, Raspberry Pi, Firebase, Bluetooth Low Energy

#### **!ForgettaBoutIt**

- RFID scanner device using Arduino-based module inside backpack notifies via app

#### **ECE 111 (DIGITAL DESIGN)**

- Bitcoin mining algorithm using SHA-256 hash code in System Verilog

#### **ECE 107 (ELECTROMAGNETISM)**

- Matlab program finding discretized charges and capacitance of a parallel plate capacitor