

Michael Hernandez

+1 503-380-0710 | michaelhern@hotmail.com | [linkedin.com/in/michaelhernandezengineer](https://www.linkedin.com/in/michaelhernandezengineer)

SUMMARY

Experienced software engineering professional proficient in Python, and C++ with experience in post-silicon functional validation, and script development.

SKILLS

Programming Languages: Python, C/C++, MATLAB, LaTeX

Developer Tools: Arduino IDE, Git, GitHub, PyCharm, Visual Studio, VS Code, Atom, VIM, Linux

Libraries: Adafruit Arduino Libraries, Wire, LiquidCrystal

Spoken Languages: English (Native), Japanese (Conversational)

PROJECTS

Validation Script Development | *Git, GitHub, Python, PyCharm, Linux*

- Developed and updated Python test scripts to stress test CPU hardware and validate feature functionality against specifications
- Collaborated with Architecture, Design, and Pre-silicon Validation teams to ensure appropriate testing of features
- Wrote a comprehensive technical document outlining the objectives and operation of a newly developed script

Compact Solar Powered Vaccine Dispenser | *C++, Embedded Programming*

- Designed a portable solar-powered vaccine dispenser prototype
- Programmable ATMEGA2560 microcontroller with Arduino was used to interface with peripheral devices
- User interface featuring an LCD screen, keypad, and joystick was programmed
- Implemented username and password mechanism for device unlock and vial dispensing
- Usage information recorded on an onboard SD card
- Developed in C++ programming language

Autonomous Robot Car | *C++, Embedded Programming, UART*

- Team of two constructed a robot with autonomous driving and Bluetooth manual control capabilities
- Programmable ATMEGA2560 microcontroller with Arduino was used to interface with peripheral devices
- Implemented three autonomous driving features: line follower, ultrasonic range detection, and cruise control
- Low-level programming was used to implement a PID loop for maintaining constant speed on varying inclines
- An HC-05 Bluetooth transceiver interfaced with the microcontroller's serial port for manual input through a smartphone app

EMPLOYMENT HISTORY

System Validation Engineer

Intel Corporation

January 2021 – Present

Hillsboro, OR

- Post-silicon functional validation of memory controller hardware for Intel Xeon processors
- Debug failures and identify areas for improvement in post-silicon test content
- Created, defined, and developed system validation environment and test suites

EDUCATION

Oregon Institute of Technology

Bachelor of Science in Electrical Engineering

Wilsonville, OR

June 2020

Portland State University

Bachelor of Science in Biology, Minor in Chemistry

Portland, OR

June 2014

CERTIFICATIONS

FE: Electrical and Computer Engineering

September 2020

Arduino Fundamentals Certification on Electronics and Physical Computing

September 2020