Eric Aki
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Technical Skills

Hardware/Instruments

- Proficient in mixed signal design, prototyping and debugging with Breadboards, Manhattan construction, and PCB's from DC to RF.
- Significant experience in design troubleshooting, and problem solving.
- Significant experience in operating test equipment such as Analog/Digital Oscilloscopes, Function Generators, Network Analyzers, and Spectrum Analyzers.

Software

- Proficient in MATLAB/Octave, EAGLE, Altium, Spice, Latex, MS Office
- Some experience in C, and SystemVerilog

Education

BSEE, Electrical and Computer Engineering | GPA: 3.47 | Graduation: June 2020

Portland State University, Oregon

- Position Relevant Course Material: SystemVerilog, Signal Processing, MATLAB and C Programming, Analog IC design, and Instrumentation and Sensing.

Engineering Transfer | GPA 3.59

Portland Community College, Oregon

Relevant Experience

Electrical Engineer - Nexgarden Farms | July 2019 – Present

- Designed fully isolated data acquisition board for aeroponic vertical farming startup. Worked alongside software and electronics engineers to successfully implement an expandable sensor board to read and store temperature, pH, and conductivity data of soil. Reduced cost of sensor interfacing roughly 30%, by eliminating need for proprietary hardware.

Homecare Worker – DHS (State of Oregon) | Jan 2016 – Present

- Provide in-home care services for client. Tasks include Meal Prep, Transportation and assistance with general daily tasks. Requires effective time management, communication, and an ability to multi-task.

Personal Project(s)

Nixie Tube Frequency Counter (ongoing)

- Implemented with 7400 CMOS logic and discrete components (~50Mhz Bandwidth).
- Prototyped with dead bug style construction and finalized in a PCB using Altium Designer.
- Completed design blocks include pierce crystal oscillator time base, RF signal conditioning front end, digital reset circuitry, main counting section and BCD to decimal decoder.