Artem Kulakevich

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Education

Jun 2019 – Present	**Master of Science, Electrical Engineering**, *Portland State University*, *Portland, OR*. **GPA: 4.00/4.00**, *Expected: Jun 2021*
Sep 2017 – Jun 2020	**Bachelor of Science, Electrical Engineering**, *Portland State University*, *Portland, OR*. **GPA: 3.97/4.00**, *Summa cum laude*

Work Experience

Dec 2016 – Present
40 hr/week

Production Specialist III, *Micro Systems Engineering Inc.*, Lake Oswego, OR.
- Perform troubleshooting, wiring, and soldering tasks on automated systems and fixtures.
- Introduce new production steps, update production documents, and perform training.
- Work on LabVIEW software changes for production imaging cells, including code reviews.

Skills

Languages C++, C, Rust, LabVIEW 12.0, ARM Assembly, SystemVerilog, Matlab

Programs Git, Linux (Ubuntu), Windows, LTspice, Cadence Virtuoso, Visual Studio, MS Office, SAP

Hardware Soldering, Oscilloscope (Tektronix/Rigol), Function Generator (Tektronix), Power Supply

Projects

Jun 2020 – Present
Rust Self Balancing Robot, *Rust, OpenOCD, GDB*.
Built a self balancing robot using STM32f303 Discovery board. Programmed wireless data telemetry and Madgwick filter for IMU sensor fusion using embedded Rust. Currently working on tuning and wireless controls.

Jan 2020 – Jun 2020
Senior Capstone, *Rust, C++, Arduino, Kind2, Lustre, PHP, SQL, Apache2*.
Modified Kind2 Lustre to Rust compiler to generate embedded Rust code from a verifiable language. Streamlined the process of creating verifiable embedded controllers. Found Rust PID controller to have identical real-world performance to controller written in C++.

Oct 2019 – Jan 2020
Module Imaging Cell, *LabVIEW 12.0, log4net*.
Implemented software changes to automated production cell software. Introduced log4net logging to SQL, data collection to a digital factory, and changes to the state machine that reduced chances of collision and product loss.

Apr 2020 – Jun 2020
MIPS-lite Simulator, *C++, Git*.
Designed a 5-stage MIPS simulator in C++ and tested output with provided generic memory image. The simulator was able to perform basic data manipulation on memory image.

Sep 2019 – Feb 2020
CMOS Standard Library Design, *Virtuoso 6.1.8, ADE, OCEAN/SKILL*.
Designed standard library components using Cadence Virtuoso layout and ADE tools. Wrote scripts to simulate and measure output values with different temperatures, inputs voltages, and input rise times.

Sep 2019 – Dec 2020
Class AB Audio Amplifier, *LTspice, Soldering, Oscilloscope*.
Designed a complimentary symmetry audio amplifier using mostly discrete BJTs to drive a 10W speaker. Soldered, designed and tested using homelab equipment.

Sep 2018 – Feb 2019
ARM Sitara AM335x UART / I2C, *ARM Assembly, C*.
Programmed BeagleBone Black to communicate with an RC8660 talker boards and NewHaven LCD using assembly and C.