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 **Production Specialist III**, *Micro Systems Engineering Inc.*, Lake Oswego, OR.

- Execute troubleshooting, wiring, and soldering tasks on automated systems and electrical fixtures.
- Backup shift lead for production tasks, designated to assign work, and resolve communication issues.
- Support engineering by introducing new production steps, update production documents, and training.
- Work on LabVIEW software changes for production imaging cells, including code reviews.

Sep 2019 – Jan 2020 **Engineering Internship Project**, *Micro Systems Engineering Inc.*, Lake Oswego, OR.

- Collaborated with senior engineers to implement software changes to automated 4-axis imaging cell robot.
- 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.

Skills

Languages C++, C, Rust, LabVIEW 12.0, ARM Assembly, SystemVerilog, Verilog, Matlab, Russian
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.*
Assembled a self balancing robot using STM32f303 Discovery board. Programmed wireless data telemetry and Madgwick filter for IMU sensor fusion using embedded Rust.

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++.

Apr 2020 – Jun 2020 **MIPS-lite Simulator**, *C++, Git.*
Designed a 5-stage MIPS simulator in C++ and tested output with given 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.*
Developed standard library components using Cadence Virtuoso layout and ADE tools. Composed 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.*
Produced a complimentary symmetry audio amplifier design 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.