ARTEM KULAKEVICH

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EDUCATION

Master of Science Degree, Electrical Engineering **GPA: 4.00 / 4.00** **June 2019 – Present**
Portland State University Portland, OR

Bachelor of Science Degree, Electrical Engineering **GPA: 3.97 / 4.00** **September 2017 – June 2020**
Portland State University *Summa cum laude* Portland, OR

WORK EXPERIENCE

Production Specialist III **December 2016 – Present**
Micro Systems Engineering, Inc. (Medical Device Industry) Lake Oswego, OR

- Run and troubleshoot at least 8 major production processes; more certifications than any other specialists on shift. Perform regular preventative maintenance and calibration on equipment.
- Analyze electrical failure using Eagle and Allegro and troubleshoot mechanical systems using knowledge conveyor systems and hardware alignment. Repair at least 1 mechanical system or electrical fixture per week.
- Lead a team of 8 production specialists multiple days a week by designating tasks for each person and identifying stalls in the workflow. Deal with communication issues between engineering and production staff.

Module Imaging Cell Internship Project **September 2019 – January 2020**
Micro Systems Engineering, Inc. (Medical Device Industry) Lake Oswego, OR

- Updated and validated LabVIEW software used in automation of 3 different 4-axis production imaging robots that reduced chances of collision. Added data logging that is now recorded for 500 – 1000 medical devices daily.
- Modified an outdated workflow process for defibrillator product by retraining a 6-axis Epson robot. Reduced human handling and process time for 200 – 600 defibrillators per week.
- Improved documentation by updating 3 design documents, creating a new record document, and a new standard operating procedure (SOP) document.

SKILLS

- C++ / C
- Embedded Rust
- ADC, SPI, I2C
- LabVIEW 12.0
- ARM Assembly
- Soldering
- Documentation
- Oscilloscope
- IDE Debugger
- Git (Github)
- Linux (Ubuntu)
- MATLAB

PROJECTS

High Assurance Self Balancing Robot - Senior Capstone **January 2020 – June 2020**
Project Sponsor: Galois, Inc. Portland, OR

- Programmed a self-balancing robot to explore methods of control and verification. Modified a Rust compiler in a verification tool called Kind2 to generate embedded Rust code from a language called Lustre.
- Used Kind2 to generate embedded Rust PID and Fuzzy logic controllers from Lustre and found Rust PID to be within 5% of C++ controller for major characteristics. Sponsor's best performing project out of 3 different groups.

Rust Self-Balancing Robot **June 2020 – Present**

- Assembled a self-balancing robot using STM32f303 discovery board to gain experience with embedded programming and to have some fun. Programmed wireless data telemetry and Madgwick filter for IMU sensor fusion, working on wireless control and PID calibration.

ARM Sitara AM335x 32-bit Processor **September 2019 – December 2019**

- Utilized ARM bare metal assembly and C to program a BeagleBone Black board to communicate with an RC8660 talker board over UART and a NewHaven LCD over I2C.
- Used datasheets and pseudo code to identify and plan modifications for peripherals. Was able to complete match all specifications using interrupts and added supplementary features for extra credit.

RELEVANT COURSEWORK

- Computer Architecture, Microprocessors 1 & 2, ASIC: Modeling & Synthesis, Digital Integrated Circuits Design, Analog Integrated Circuit Design