

Portland, OR

# COLLIN CONWAY

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SEASONED SOFTWARE ENGINEER, DATA HOUND AND BUG HUNTER RELOCATING TO NEW ENGLAND

## EMPLOYMENT

**Sr. SW Engineer**   *MLCC Product Engineering*   *MKS | ESI*   *Portland, OR*   *3/22 - 6/23*

- Owned architectural change to main processing application by merging multiple processes into one.
  - Implemented compile time C#/C++ interop message passing system with no code xml API.
  - Optimized OS Resource allocation for timing stability for soft real time capacitor test system.
  - Key customer went from having to restart computer daily to being able to run for weeks.
  - Project to double measurement output was able to meet MTTF requirements with this change.
- In 1 year wrote 560-unit tests, and increased code coverage by 6.5%, in large established codebase.
- Recovered devops infrastructure for multiple product families after ransomware attack.
- Did modeling, data mining, & visualization w/ Python on interdisciplinary investigation/scoping teams.
- Developed onboard automation in C# transforming a high touch 4 hour SW upgrade into a few clicks.
- Presented and gave feedback for design reviews of innovative, high value system features.
- Clarified requirements and provided system software expertise for large interdisciplinary team.

**SW Engineer II**   *MLCC Product Engineering*   *MKS | ESI*   *Portland, OR*   *5/19 - 3/22*

- Implemented service to detect faulty peripherals causing OS timer corruption at large customer site.
- Added query features and trained users to mine useful data from customer manufacturing logs.
- Automated 14 hours of repeated oscilloscope performance testing of 100+ processes to 1 click.
- Developed modular simulation of manufacturing software for HALT testing of new subsystems.

**SW Engineer I**   *Laser Trim SW Engineering*   *ESI*   *Portland, OR*   *6/18 - 5/19*

- Developed Computer Vision fitting algorithm with 5  $\mu$ m positioning accuracy of custom probe cards.
  - Received Principles in Action Award for customer acceptance at large SEMI fab.
- Created real time PID oscillation detection, reporting & shutoff feature in for Galil DMC controller.
- Developed regression test plan for SEMI Laser Trim & Test system.

**SW Lead**   *Trickfire Robotics*   *University of Washington*   *Bothell, WA*   *5/17 - 4/18*

- Primary designer and implementer of robotics software for NASA Robotic Mining Competition entry.
- Developed autonomous navigation system w/ C++, ROS Navigation Stack, and depth camera data.
- Implemented differential drive PID control system with ROS control stack and Arduino.

## EDUCATION

**B.S. in Computer Science and SW Eng.**   *University of Washington*   *Bothell, WA*   *2/16 - 5/18*  
Cum Laude, In-major GPA: 3.94

*Engineering Prerequisites*   *North Seattle College*   *Seattle, WA*   *9/14 - 2/16*

## TECHNICAL EXPERIENCE

**Portfolio Website:** React, Rust, WASM

[collin-codes.azurewebsites.net](http://collin-codes.azurewebsites.net)

**Languages:** C#, Python, PowerShell, C++

**Technologies:** Git, Azure Devops, Ranorex, WPF, Numpy, WinForms, OpenCV, Cognex, ROS, Flask, Galil