# Bartholomew Olson

## Software Engineer

(206)-816-4204 | bartolson1189@gmail.com | linkedin.com/in/bartholomewolson
https://bart-olson.github.io/Portfolio/

## Skills

### Languages
C++
C
Python
MATLAB
Powershell

### Tools
Visual Studio
Microchip Studio
Unreal Engine 5
Blender
CMake

### Compilers
GCC/G++
Microsoft Compiler

### Management & Source Control
Git
JIRA
MS Office
Trello

### Platforms
Windows
Linux
Various Atmel Microcontrollers

## Work Experience

**Software Engineer** | ChilLED Tech | Arlington WA | Jan 2021 – Jan 2023
- Wrote a C++/QT prototype app to schedule and control the wavelength of high-end LED grow lights
- Supported the C++ and communications backend of a fleshed-out QML app to do the same
- Assisted with prototyping and testing new lights, including long-term testing in a personal setup
- Wrote Python tools for customers to visualize light levels and effects in typical growing environments

**Hardware Test Engineer** | Microsoft | Redmond WA | Mar 2019 – Jan 2021
- Worked daily with 6-axis robots running tests on in-development devices with the Surface Team
- Wrote, modified, and adjusted C# and PowerShell tests, troubleshot issues with tests, and analyzed and organized test results for Device Verification Engineers (DVEs)
- Troubleshot and solved issues with prototype devices, using proprietary tools and help from DVEs
- Performed electrical and mechanical design of a tool-changing system for the Newmark brand of 3-axis robots using Creo Parametric Design

**Software Engineer** | Tethers Unlimited | Bothell, WA | Jun 2017 – Jan 2019
- Researched and wrote a MATLAB simulation of a satellite orbiting Earth while simultaneously running various search algorithms for available mobile ground stations
- Researched and implemented Machine Learning and Artificial Intelligence algorithms applicable to the problem of a satellite searching for a transmitter in a busy environment
- Wrote a C++ physics simulation to create radiated power maps in a noisy RF environment
- Re-factored and worked on software for controlling a complex reeling machine that interfaced to 20 motors, sensors, and encoders using C++, Python, and JavaScript
- Authored SBIR proposal to NASA regarding Printed Circuit Board Smallsat Structures

## Education

**BS, Electrical Engineering** | Eastern Washington University | Dec 2017
Concentration in Computer Engineering | GPA: **3.65**/4.00