

Maxmillion McLaughlin

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Experience

SumUp sumup.com

September 19' - Present

Software Developer

- Worked with BI and fraud teams to build configurable reporting tools for detecting and weighing fraudulent merchant activity.
- Began migration of KYC compliance platform functionality from monolithic architecture to Lambda based micro-service design.
- Built suite of G-Suite add-ons for Drive and Sheets exposing SumUp's API inside Google Apps.

Heavy Water Aero heavywateraero.com

Apr 19' - Present

Co-Founder & Electrical Engineer

- Rapid prototyping of aeroponic growing fixtures using 3D printers, laser cutters, CNC mills, lathe, etc.
- Product design for manufacturability using CAD software, primarily SolidWorks.
- Circuit design of large piezoelectric transducer array driver along with Arduino control library.
- Used test-driven design of growing fixtures, tracking growth to inform what works and what needs tweaking.

Moa Predictive Maintenance moapm.com

Aug 15' - Jan 19'

Embedded Engineer

- Worked on numerous RF PCB designs ranging from 433MHz to 5GHz utilizing chip, external or PCB antennas on boards between 2 & 10 layers.
- Designed for high speed circuitry of DDR3 & NAND flash interfaces.
- Built custom Yocto Linux distribution to run on our border router hardware.
- Implemented DSP software modules for vibration sensing applications using assembly languages/C/C++.
- Designed various automated test fixtures used during assembly to validate functionality
- Worked directly with sourcing agents in Shenzhen to reduce BOM & track down tough to find components (especially NAND & LPDDR3 ePoP at the time).
- Readied designs for manufacturing & coordinated closely with fabrication & assembly houses for production.
- Negotiated contract with Verizon to provide LTE backhaul network for our devices.

Bruno Home Services

Dec 14' - Aug 15'

R&D Engineer

- Converted breadboarded Arduino & Raspberry Pi prototypes into manufacturable, low-cost, high volume designs.
- Designed series of home health monitoring sensors around Atmel's Lightweight Mesh network software - implementing MQTT for server to node communication.
- Worked alongside our data scientist to implement SMACK stack for diagnostic data analysis & anomaly detection.
- Deployed & maintained a network of 60 prototype sensors across a pilot region to collect HVAC blower motor diagnostics.
- Utilized Amazon's AWS IOT platform to build a PoC portal & REST API to provision sensors & monitor status.

Fibonacci Inc.

Nov 13' - Oct 14'

Fibonex Project Manager

- Managed remote team of web designers & developers building a cryptocurrency exchange focused on alternative cryptocurrencies – primarily Litecoin.
- Involved in application design, site architecture design, using PHP, JavaScript, CSS & HTML
- Traveled extensively between many cryptocurrency conferences to promote our product

Misc Projects

Project Litter Bug projectlitterbug.com

Sep 19' - Present

A pet project from a friend & I that ingests random audio, video & photo content from the internet & generates strange visual art everyday. Written messily over a weekend or two in Python, though a full refactor is in progress.

Samaritus

Oct 14' - Mar 15'

Our winning project for the Money 20/20 hackathon project intended incentivize recycling through immediate micro transactions. For the hackathon we embedded small, flat RFID tags into the labels of recyclables & read them with a small antenna array as they entered the bin. After the hackathon I worked to implement a simple computer vision PoC using OpenCV.

Authentic Weather authenticweather.com

Mar 13' - Apr 14'

An iOS app I built with designer Tobias van Schneider to give you an honest reading of the weather. Initially written in Objective-C, I later rewrote the app in Swift before handing off development around the time we hit 100,000 downloads in the App Store. A typical phrase describing the weather in app would be 'It's f**king raining now'.