

ADAM WELD

201 Worth Street, Ithaca, NY 14850 | 206.617.6613 | [linkedin.com/in/adamweld](https://www.linkedin.com/in/adamweld) | adam.weld@gmail.com

OBJECTIVE - Seeking a full time position in R&D working on challenging multidisciplinary projects. I thrive on fast iteration and outside-of-the-box thinking. Most interested in areas that synthesize of one or more of electronics, mechatronics, embedded systems, machine learning, and computer vision, and motion control.

EDUCATION

Cornell University B.S. in **Electrical and Computer Engineering** - May 2019

Electrical

- ❑ Schematic design and simulation, validation
- ❑ PCB layout and routing
- ❑ Digital and analog RF communications
- ❑ Embedded firmware
- ❑ USB, SPI, I²C Interfaces
- ❑ PCBA bringup and testing

Mechanical

- ❑ SolidWorks modeling
- ❑ Materials properties, selection and testing
- ❑ Design for manufacture
- ❑ Parametric design
- ❑ Statics and Dynamics
- ❑ Ansys FEA simulation
- ❑ Precision Tolerancing

Robotics

- ❑ Programming in C, C++, Python, MATLAB, BASH
- ❑ High Level design and subsystem integration
- ❑ Actuators, manipulators, sensors, and drivetrain
- ❑ Controls algorithms
- ❑ System model simulation

Manufacturing

- ❑ Supply Chain Logistics
- ❑ On-site CM/OEM work
- ❑ CNC milling/waterjet
- ❑ Rapid Prototyping
- ❑ 3D Print / Laser Cut
- ❑ Injection molding
- ❑ Precision soldering
- ❑ SMD reflow/rework

PROFESSIONAL EXPERIENCE

HoverBot.io

10.2016 - 09.2019

Seattle, WA

Founder and CEO

- ❑ Launched drone company with industry-leading performance in ultralight racing market.
- ❑ Lead Research and Development on custom BLDC motors, Carbon Fiber Exoskeleton design, STM32-based flight control electronics, LIDAR subsystem, flight testing and qualification.
- ❑ Achieved best-in-class noise performance, durability, safety, wind resistance, size and weight.
- ❑ Coordinated manufacturing logistics, distribution, marketing, and customer support.

Amazon Prime Air

05.2017 - 09.2017

Seattle, WA

Hardware Design Internship

- ❑ Took ownership of flight critical sensor subsystem and researched dozens of white papers.
- ❑ Worked with team members and leadership to identify areas needing improved performance.
- ❑ Created test plans, physical rig and fixturing, and scripting to document the precision and accuracy of numerous possible replacement sensors and characterize their behavior.
- ❑ Designed a densely populated six-layer printed circuit board in Altium from schematic to layout using integrated ECAD/MCAD techniques, and performed board bring-up and testing.

Vantage Robotics

05.2016 - 08.2016

SF Bay Area, CA

Hardware Design Internship

- ❑ Designed and tested PCB with FTDI and pogo-pin interface for debugging and development.
- ❑ Fabricated programming, manufacturing, and assembly jigs for production with CM / OEM.
- ❑ Created three-axis ball bearing test stand with .01 degree repeatability to calibrate camera firmware and digital image stabilization algorithm.
- ❑ Redesigned components for manufacturability and cost reduction.
- ❑ Prototyped WiFi repeater handset and implemented video pass through functionality.

Project Voxa

05.2015 - 09.2015

Seattle, WA

Hardware Design Internship

- ❑ Designed electromechanical positioning subsystem for an electron microscope, from conceptualization to the fabrication of a working production prototype.
- ❑ Gained experience in vacuum systems and cleaning procedures and materials selection.
- ❑ Modeled and simulated precision flexure assembly for EDM machining out of Titanium.
- ❑ Designed, built, and tested custom nanoscale piezoelectric linear actuators and prototyped precision four-axis linear motion positioning system.

University of Washington

04.2013 - 03.2014

Seattle, WA

Robotics and State Estimation Research

- ❑ Assisted in the creation of a mobile Robotic Assistant for the Visually Impaired
- ❑ Performed component selection, wrote software, and handled subsystem CAD design work, sensor placement, and connecting structure architecture.
- ❑ Researched and helped implement (in ROS) visual object recognition, semantic world knowledge system and natural language processing programs.
- ❑ Incorporated real time video, RGBD cameras, and laser scanning technologies into feedback and controls structure.

MANAGEMENT EXPERIENCE

CUAir Project Team - Electrical Lead

Cornell Maker Club - Lab Manager

Cornell RPL - Lab Manager