

# Kyle Mayer

Electrical and Software Engineer  
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I am an electrical engineer with a passion for developing modern electronic tools. My professional career has included analog instrumentation and controls, as well as power electronics. My personal pursuits have included the design of precision data acquisition systems.

## WORK EXPERIENCE

- 2G Engineering**, Electrical Hardware Engineer **12/2015-Present**
- Subsea Actuators, power supplies, battery management systems, and additional contract work. Duties include project requirement specification, schematic design, circuit simulation, PCB layout, circuit testing, revision documentation, continued product support
- Blow Birthday Cards**, Software Developer **2015-2016**
- Developed image processing software for autonomous handwriting analysis. Worked with a small team to develop intuitive to use, OS independent software package.
- Tormach**, Mechanical Engineering Intern **Summer 2014**
- Worked alongside engineers on product development, improvement, troubleshooting, and customer support. Put in charge of a few smaller projects.
- Phoenix Nuclear Labs**, General Engineering Intern **10/2011 – 9/2013**
- Supported engineers with prototype design, assembly and testing, machining, welding, electrical wiring, circuit board design, documentation and drafting
- UW Madison** **9/2012-5/2013**
- **IEC Nuclear Research Lab**- assisted graduate quadriplegic student in performing lab tasks- managing vacuum systems, setup and execution of experiments, and computer simulation, modeling and software development, to help him attain his PhD.
  - **Manufacturing Assistant** – supported undergrad engineering students by illustrating how they might bring CAD drawings to prototype

## EDUCATION

- Alaska Pacific University**, Anchorage, Alaska **2016-2018**
- Electrical Engineering and Environmental Science
- Olin College of Engineering**, Needham, Massachusetts **2013-Fall 2016**
- Electrical and Computer Engineering.
  - Coursework in controls, sensing, software design, data science, VLSI and microelectronics, EE prototyping and PCB design, communications, networks, digital systems, and mechatronics
- University of Wisconsin Madison** **2011- 2013**
- Math, Science, and Engineering

## PERSONAL PROJECTS

*Measurement equipment design:* Universal inductor saturation tester, light based non-contact precision distance sensors, chiropractic differential temperature sensor, accelerometer based 3D point scanner

*Scientific Projects,* experimentation with plant growth in partial vacuums and controlled gas compositions

*Electrical projects,* solar powered RC aircraft, super capacitors and alternative energy management, switching regulator design and power conversion, RFID communication, induction heating, high voltage switching, human sensors and safety, underwater sensing, VLSI microcontroller design

*Mechanical projects,* precision linear motion (custom CNC equipment)

*Software projects,* stock market prediction/ simulation, machine learning, magnetic levitation, billiards simulator, RC aircraft autopilot development, predictive failure analysis, greenhouse accelerated growth control