

ETHAN MYERS

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EDUCATION

Undergraduate at the University of Colorado, Boulder. Physics & Math Major, 3.2 (3.4 last term) GPA

Classes: Quantum Mechanics I, Intro to Quantum Computing, Statistics, Electricity & Magnetism II

Expected Graduation: May 2021

SKILLS

- *Python, SQL, C++* — independently learned and wrote code for a variety of projects
- *KiCAD* — designed boards for 3 separate projects, had them fabricated, and tested them successfully
- *Fusion360* — sketched, simulated and 3D printed several novel designs for various projects
- *Windows/Linux* — functioned as a system administrator for Windows, Mac, and Linux computers
- *Manual Machining and Fabrication* — designed and created custom parts on a mill and lathe
- *Photoshop, Mathematica, and Microsoft Office Suite* — worked with each package intensively for school

PROJECTS

VILLAGE GROUP, LLC

2015 - 2020

- Founded and managed a joint LLC with \$95,000 annual revenue
- Wrote custom browser automations with Selenium to automate boring tasks, including automating around extensive reCAPTCHA v2 challenges

WIRELESS GARDEN MONITOR

2017 - 2018

- Designed a custom PCB with Wifi, low quiescent boost converter and battery management system
- Included I²C, OneWire, and UART sensor inputs for a variety of environmental sensors
- Utilized a time series database and local MQTT broker to graph historical data on a Raspberry Pi

COLORADO HEP RESEARCH

2020

- Working for Eric Zimmerman at CU Boulder building hardware and software for a particle detector
- Updated old Erlang software to interface with a HDO8058 oscilloscope using Automation and Python
- Tested, diagnosed, and fixed problems in old photomultiplier bases

VOICE MODULATOR

2019

- Designed a totally analog voice modulator capable of shifting pitch in real time
- Used a variable frequency quadrature oscillator based on a Wein bridge oscillator to generate shift
- Entirely discrete, except for multiplier stage and final audio amplifier

CUSTOM 3D PRINTER

2013 - 2017

- Built a custom 3D printer incorporating linear rail, heated bed and ACME leadscrews
- Modified existing firmware to reduce jerk, tuned PID loops, and ran tests to find ideal motion settings

EMPLOYMENT & VOLUNTEERING

Special Olympics Colorado, *Swim Coach* — assisted and mentored disabled individuals *2010-2017*

Walker and Dunlop, *Intern* — built property financial models for commercial real estate *2016*

Adidas, *Associate* — opened and closed the store regularly *2018*

CU Boulder, *Undergraduate Research* — designed software for a small scale particle detector *2020*