

# Andrew McMullin

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Github: [github.com/mcmullinboy15](https://github.com/mcmullinboy15)

Portfolio: [portfolio.mcmullin.app](https://portfolio.mcmullin.app)

## EDUCATION:

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### UNIVERSITY OF MICHIGAN

Aug 2021 - (December 2022)

#### **Masters in Computer Science and Engineering**

- Parallel Computing, AI Foundations, Advanced Compiler, Machine Learning

### UTAH STATE UNIVERSITY (GPA: 3.9 / 4.0)

Aug 2019 - May 2021

#### **Bachelor's in Computer Science & Minor in Math**

- AWS Cloud Computing, Database Systems, ML in Clean Energy

### SALT LAKE COMMUNITY COLLEGE (GPA: 4.0 / 4.0)

Aug 2018 - May 2019

## RELATED EXPERIENCE:

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### APPLE

#### **Software Engineer (Intern)**

May 2022 - Aug 2022

- Built the Hardware Tech. Compiled Memory Website from scratch to replace the outdated implementation.
- Focused on maintainability and ease of future updates using a class-based architecture, modern libraries such as Python and JavaScript, and popular code standardizations such as Django.
- Followed standards for Authentication, Authorization, Testing, and Continuous Integration.
- This project was in production by the end of the Internship.
- Additionally, contributed to the documentation of Apple's Authentication Team.

### OPTIMA POWERWARE

#### **Web-based Controls Engineer (Intern)**

July 2021 - Aug 2021

- Developed controls for Goldmines to understand our controls and ML models. Currently in production.
- Fixed Django templates implementation and design.
- Recommended React.js for development scalability. Rebuilt current application to use Django API and React.js.

### EZSALT (Startup)

#### **Co-Founder and Lead Developer**

Nov 2019 - July 2021

- Built EZsalt software from the ground up, with many versions and improvements.
- Updated Django application on AWS EC2, to a Vue.js project using FirebaseAuth, Firestore, and GCP Functions.
- Improvements made to scale to thousands of new customers and devices using MQTT protocol for communicating data from devices to users and databases. In production, supporting over 100+ users, without failures.

### OPTIMA POWERWARE

#### **Data Controls Engineer (Intern)**

May 2020 - Aug 2020

- Presented **Pytorch** models to predict the quality of the Goldmine's output (slurry).
- Resulting in a Neural Network of 3-5 Linear Layers, with 16 input features and 1 output feature.
- Preprocessed 20,000 data entries down to only accurate values from every 4 hours when a sample was taken.
- Eliminated manual sampling every 4 hours for Goldmine Employees, using accurate quality prediction.

## FREELANCE

#### **Web Developer**

June 2021 - present

- Precision Systems Engineering: Display for Company finances & budgets. Reducing employee responsibility.
- Builders without Borders of Utah: New Webpage to learn about this non-profit ([bwbutah.org](https://bwbutah.org))

## SKILLS:

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- Python: Pytorch, Numpy, Pandas
- JavaScript: Vue.js, React, Node, Vuetify, Material-UI
- C++: LLVM, TVM, MPI, Open, Cuda
- Java, Git, Linux, Django, Redis
- Google Cloud: Functions, Run, VM, gcloud
- AWS Cloud Computing Graduate Course
- Software Development and Design
- Supply Management, Logistics
- Tagalog Language
- Leadership:
  - Eagle Scout
  - Missionary Philippines