



# Andrew McMullin

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## EDUCATION

### MASTERS IN COMPUTER SCIENCE & ENGINEERING

University of Michigan

Dec 2022

- Focused on prototyping and developing strategic UX/UI designs that address user needs using Figma and JS
- AI/ML, Parallel Computing, and Advanced compilers help to master computer systems

### BACHELOR'S IN COMPUTER SCIENCE & MINOR IN MATH

Utah State University

May 2021

- AWS Cloud Computing, covered all AWS services for the AWS practitioners exam
- Data Visualization, logical approaches to displaying data with charts and graphs (d3, jQuery)

## EXPERIENCE

### CONTROLS ENGINEER 1

Precision Systems Engineering

March 2023

- Developed an 'Ignition'-based HMI for a mineral plant, complemented by a production-ready HTTPS data API
- Custom CRM for Job/Proposal workflow, within Outlook Add-in. (React, Express, API, Azure)

### FULL-STACK ENGINEER

FREELANCE

June 2020

- Project Lead at Podcast Automation Startup, 3rd-party API integration in React, Express, DynamoDB: [podflow.ai](https://podflow.ai)
- Automated Payroll for GoalHome LLC. 4+ hours to 5 minutes. Factoring in overtime and unique day/night pay
- Nonprofit Frontend UI ([bwbutah.org](https://bwbutah.org)), highlighting mission and initiatives. (Vue, Custom CSS, Google Firebase)
- Secure Video Streaming ([videojs](https://videojs)) webpage. Instructional videos for textbook supplementation: [prclinks.com](https://prclinks.com)

### FULL-STACK ENGINEER (INTERN)

APPLE

May 2022 - Aug 2022

- Rebuilt a 10-year-old webpage for Hardware Tech's Compiled Memory engineers. Production ready in 3 months
- Focused on Code Maintainability, for easiest possible future updates. (Docker, CI/CD, unit/e2e tests)
- Implemented Vue.js, dramatically enhancing response times and eliminating blocking notifications on errors
- Detailed Docker management, Django backend & Redis queue to communicate with Apple Compute queue

### BACKEND ENGINEER (INTERN)

OPTIMA POWERWARE

July 2021 - Aug 2021

- ML model controls, backend management for goldmine automation. Currently in production
- React & REST API (django), Rebuilt for scalability

### CO-FOUNDER AND CTO

EZSALT (Startup)

Nov 2019 - July 2021

- Built micro-controller for monitoring water-softener salt levels on your phone
- 300+ users, 0 failures, 3+ years. Scalable to thousands of new customers
- Vue, Express, CI/CD, Github Actions, FirebaseAuth, and Firestore, used for scalability and simplicity
- 4+ Cloud Functions for new users, messages, etc. 12+ other API endpoints [mcmullin.app/ezsalt](https://mcmullin.app/ezsalt)

### MACHINE LEARNING ENGINEER (INTERN)

OPTIMA POWERWARE

May 2020 - Aug 2020

- PyTorch Neural Network predicting Goldmine output quality. 3-5 Linear Layers, 16 input to 1 output feature
- Eliminated manual sampling every 4 hours

## SKILLS

- **Languages:** Advanced proficiency in **Python** (Numpy/Pandas, PyTorch) and **JavaScript** (React, Vue, Node, Express), JAVA, C++, Go
- **Tools:** Docker, Linux, Django/Flask, Redis, REST
- **Cloud Services:** Proficient in Google Cloud, and multiple projects in AWS and Azure
- **UI/UX Design:** Highly Skilled in HTML/CSS, Hyper focused on clean UX with maintainable/clean code

## REFERENCES

**Derrick Leach**

CAD Manager at Apple  
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**Brandon Broschinsky**

VP of Prof. Services at Instructure  
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