

Patrick McElroy

5614 Shenandoah Ave, Norfolk Va, 23509
757-754-8111 • pmcelroy@umich.edu • linkedin.com/in/pdmcelroy
<https://github.com/PatrickMcElroy>

EDUCATION

UNIVERSITY OF MICHIGAN

Ann Arbor, MI

Bachelor of Science in Computer Science in the School of Engineering, Minor in Business

May 2023

GPA: 3.93/4.0 – 3x Dean's List; 4x University Honors, James B. Angell Scholar

Coursework: Introduction to Operating Systems (C++), Machine Learning (Python), User Interface Development (HTML/CSS/Vue.js), Programming and Data Structures (C++), Data Structures and Algorithms (C++), Linear Algebra.

EXPERIENCE

CONVERT SOLAR

Norfolk, VA

Software Engineering Intern

May 2021 – Aug 2021

- Designed, developed, and created a testing program for an internal mobile application using **Sketch**, **Swift**, **Zapier**, **Firestore**, **Cloud Storage**, and **TestFlight** to be used by 50+ panel installers to upload pictures and follow a checkout process at each site
- Oversaw app use in select install teams as the company grew from 10 to 30+ solar installs per week
- Set up all residential solar installs in their respective monitoring platforms, created a system within Salesforce to do this more efficiently, and taught the process to a new hire taken on just to create sites to deal with the increasing rate of panel installs

BLIND MESSAGING

Ann Arbor, MI

Frontend Developer

Sep 2020 – Dec 2020

- Worked with a 4-person project team to build a messaging app that matched randomized users to stimulate conversation
- Collaborated with our designer to create functional frontend prototypes which were pushed through TestFlight to beta users
- Coordinated with 20+ users to get feedback and make their desired changes within the planned multi-stage design process

AGOS ARTISTRY LLC

Various

Co-Owner

Jun 2020 – Jan 2021

- Built an online store around a clothing design brand and became the brand's co-owner in order to push the first online drop
- Organized photoshoots, hired a professional videographer, created Facebook and Instagram shops, and hand-printed our shirts
- Handled over 1000+ store sessions and made \$1400+ from clothing sales alone in the two weeks following the first drop

PROJECTS

STONKBOT – Personalized automated trading

Sep 2020 – Mar 2021

- Interfaced with a custom-built Robinhood API to develop a customizable, automatic, and personalized trading bot in **Python**
- Scanned the market every second with an algorithm built to take advantage of Modern Portfolio Theory and other models
- Traded stocks in increments of up to 5% of my total buying power and eventually led to a 20% increase in portfolio value

ASTEROIDS – 2D web game

Mar 2020 – Sep 2020

- Developed Infinite scrolling spaceship game using **JavaScript** as a two-person team and later hosted as a web game on Github
- Designed game assets and improved personal time management, as well as learning **HTML** and the **ProcessingJS** framework

RCRD – Goal tracking mobile application

Sep 2019 – Mar 2020

- Designed and developed a mobile IOS app that could track and display progress on a user's custom goals in an intuitive way
- Built using **Swift** and **Objective-C** for the frontend and connected to a **Firestore** database backend that would store user data
- Wrote a curator-selected Medium article describing my process throughout creating the app and the different skills it required

LEADERSHIP EXPERIENCE

SHIFT CREATOR SPACE – Co-Director (Student Org)

Mar 2021 – Present

- Co-manage a club of 30+ student creatives focusing on pushing members to execute and providing entrepreneurial resources
- Lead a smaller group of 8 students in weekly in-person meetings to keep track of progress and mentor struggling creators
- Coordinate meetings and presentations with company speakers from Duo, Cisco, and the Ann Arbor Art Center among others

MICHIGAN DISC GOLF CLUB – Co-Founder (Student Org)

Mar 2021 – Aug 2021

- Helped establish the new club by attending the necessary events, gathering members, and creating a thorough constitution
- Coordinate social events, tournaments, and casual disc golf play among 10+ members and other students in Ann Arbor

SKILLS

Programming – Proficient: Python, C/C++, Swift

Programming – Working knowledge: Java, HTML/CSS, JavaScript, React Native, Docker, ProcessingJS, Vue.js, MySQL

Tools – Proficient: Illustrator, Sketch, Notion, Adobe XD