

Patrick May

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Education

The College of Wooster, Wooster, OH

August 2020 - May 2024 (Expected)

Bachelor of Arts in Computer Science, Minor in Mathematics, Music

GPA: 4.0/4.0

Awards: Edward Taylor Prize, College Scholar Award, Music Performance Award, Dean's List

Work Experience

QA Automation Engineer, Webstaurant Store

Summer 2023

- Script multi-step quality assurance tasks using **Groovy** to automate manual QA tasks.
- Practice leadership in an **agile** development environment, through assisting in sprint planning in Azure DevOps, sizing and tasking 200+ hours of development work, participating in standups/retros/etc.
- Utilize **Selenium Grid** through a custom in-house automation framework for user test verification and automatic automation test management

Software Engineering Researcher, Carnegie Mellon University

Summer 2022

- Conducted novel research in the area of **secure programming** in computer science education
- Designed a user study, gathered research subjects, and analyzed over 20 hours of interview data
- Presented findings through poster, powerpoint, and text mediums to various professors and government agencies

Zone Intern (Lead Teaching Assistant), The College of Wooster

January 2023 - current

- Assist students in solving problems and understanding various concepts within **discrete math**
- **Lecture** about select computer science topics and create handouts to aid in students learning throughout lessons
- Advise students on future computer science prospects and general college advice through individual mentoring and discussions

Trustee/Secretary/Vice President, Jenny Investment Club

September 2020 - current

- Research and manage the student-run club's investment portfolio of ~**\$10 Million** in assets, to outperform the Russel 2000 (\$ RUT) by 16% avg, annually
- Monitor portfolio risk and manage portfolio to keep risks within desired volatility parameters
- Manage officers and club activities to increase participation, engagement, and diversity through outreach initiatives

Projects

CowProf, an Energy Profiler

[project repo](#) 

- Researched **dynamic program analysis** tools, profilers, and energy measurement tools that culminated in a 25 page research paper
- Created a tool for energy profiling utilizing techniques such as **metaprogramming** and **higher order functions**
- Wrote wrappers for CowProf profiling in **Python** and **C++**, as well as performed data visualization using **polars**, a Rust dataframe library

MyMyShopping Mobile App

[project repo](#) 

- Created a cross-platform mobile application using **Flutter** and **Dart** to assist in navigating big-box stores with a simple user interface, which we improved use and accessibility by ~60% through using focus groups
- Queried store **RESTful APIs** to get store inventories, so that a shopping route based on a user's shopping list using could be made.
- Constructed a **NoSql** database, **Hive**, to perform CRUD on user data much faster than other (No)SQL databases.

CRUD Lifter

[project repo](#) 

- Created a full-stack web application to journal fitness data using **Flask**, for individual use
- Built a mySQL database normalized towards 3NF using **SQL** to store arbitrary amounts of user data.
- Wrote an API to interface to the database, and created many unit tests using **Python** to verify performance throughout development cycle

Skills

Programming (Experience: More -> Less)

C++ Python C Groovy Dart SQL Zig Haskell Rust Java BaSH Go JS Elixir (Pheonix)

Tech Tools/Frameworks/Etc.

Git Linux WSL NeoVim polars numpy Flask Flutter Azure DevOps MSSQS Make CMD Docker Wireshark

Activities

- Crohn's and Colitis Foundation**, West-Virginia/Pennsylvania Chapter2011 - Ongoing
- Advocate members of congress for the support and passing of policies that support people with Crohn's and Ulcerative Colitis.
 - Raise \$50,000+ in funds for the foundation that support patients and research directly.
 - Speak as a keynote speaker and/or honored hero for various foundation events: Team Challenge 2011 & 2014, Take Steps 2019, Women of Distinction 2013 & 2015.

- Comparative Politics Teaching Assistant**, College of WoosterSpring 2022
- Engaged with students through discussion about course materials on political theory such as institutions, colonialism, and democracy with a modern comparative political lens.
 - Managed classroom logistics, i.e. participation, attendance, grading quizzes, updating the class website, etc.

Awards

- 2023Goldwater Scholarship Nominee
- 2022Ohio Wesleyan Programming Competition, First Place
- 2018Canada Talks Pharma Highest Rated Presentation (Keynote Speech)
- 2013Association of Fundraising Professionals Youth Philanthropy Award