

Patrick May

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Education

The College of Wooster, Wooster, OH

August 2020 - present

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

Projects

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.
- Connected a local **NoSql** database, **Hive**, to perform CRUD on user data to outperform SQL or other local databases by over 43%.

Dijkstra's Algorithm Visualizer

[project repo](#)

- Engineered a graph traversal algorithm visualizer using **Python** and **NetworkX** to display the process of Dijkstra's algorithm on any graph
- Animated the traversal through the graph using **Matplotlib** to help peers understand routing algorithms

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

Work Experience

Executive Vice President, Jenny Investment Club

April 2022 - ongoing

- Research and manage the student-run club's investment portfolio of ~\$10 Million in assets, to outperform the Russell 2000 (\$ RUT) by 10%, consistently
- Monitor overall market conditions and evaluate risks within portfolio, reducing overall losses with poor-performing stocks
- Coordinate and distribute information about club activities to investment club members to increase involvement and participation

Virtual Reality Lab Operator, College of Wooster

Oct. 2021 - ongoing

- Design and remodel lab to be a space for students to experience and research virtual reality
- Compile documentation of introductory virtual reality materials to help other students get started

Software Engineering Researcher, Carnegie Mellon University

Summer 2022

- Conducted novel research in the area of secure programming in computer science education
- Created a user study, gathered research subjects, and extracted knowledge from qualitative data
- Presented findings to world class professors, coworkers, and guests

New Student Mentor (ARCHer), College of Wooster

Summer 2021

- Liaised between college peers, faculty, and staff through means such as email, Microsoft Teams, and Zoom
- Advised incoming first-year students on what courses would fit their personal and academic interests

Skills

Programming (Experienced -> Beginner)

C++ Python C Haskell Dart SQL Java BaSH Rust Go JavaScript

Tools:

Git GNU Linux Make CMD polars numpy Docker Taguette Flask WSL Flutter Microsoft/Google Suites Zoom

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