William Callan

https://www.linkedin.com/in/william-callan/ • wacwca.github.io

EDUCATION

University of Maryland College Park, Maryland
Bachelor of Science: Computer Science, Machine Learning Concentration May 2023
Minor: Statistics GPA: 3.781
University Honors College

HONORS AND AWARDS

President's Scholarship Recipient 2019-2023
World Cube Association US National Champion 2019

WORK EXPERIENCE

Slope.io Inc Remote
Software Engineering Intern August 2020-Present

- Automated verification of 100+ documented site workflows using Selenium and Capybara
- Identified and researched issues and bugs that were communicated to the development team
- Optimized Ruby on Rails testing suite for speed and consistency

University of Maryland College Park, Maryland
Teaching Assistant August 2020-Present

- Planned and taught lessons for classes of 30+ students, in both virtual and in-person semesters
- Helped students through the process of troubleshooting and debugging in Java
- Collaborated with other teaching assistants to create additional resources for students

PROJECTS https://github.com/WACWCA/

Sked
Ruby on Rails, HTML, CSS, JavaScript, Bootstrap, Web Scraping

- Website allowing UMD students to create and compare schedules among friends to find free time between classes
- Implemented script for web scraping university's schedule of classes to populate platform database
- Designed and maintained PostgreSQL database with over 15,000 classes
- Constructed backend for maintaining user accounts, schedules, and friend requests using Ruby on Rails • Developed a responsive front-end that translates well on both desktop and mobile devices

Pac-Man + Maze Generation Algorithm
Java, Object Oriented Programming, Game Development

- Pac-Man game featuring traditional items and opponents as well as unlimited levels
- Mazes randomly generated by Tetris-style algorithm that follows traditional board restrictions
- Utilized Java GUI libraries including Swing and AWT

Rubik's Cube Algorithm Ranker
Java

- Tool for sorting through candidate algorithms for a particular Rubik's Cube position
- Extracted and analyzed currently accepted list of algorithms from .txt file to construct base algorithms for sorting

- Developed probabilistic algorithm to sorts tens of thousands of algorithms by expected speed

SKILLS

Programming Languages: Ruby, Java, Python, C, JavaScript, HTML/CSS, Rust
Frameworks: Ruby on Rails, Flutter, Pandas/NumPy