Pete Smith

(443) 254-2441 | psmit703@outlook.com | Washington, D.C. Area

https://www.psmit.dev/ | github.com/psmit703 | linkedin.com/in/petesmith-umd/

Education

University of Maryland, College Park (Expected Dec 2024)

- Dual Degree: Bachelor of Science, Computer Science; Bachelor of Arts, History
- Minor, Trumpet Performance
- Cumulative GPA: 3.392 (Jan 2024)
- Relevant Coursework: Programming Language Technologies and Paradigms, Intro to Data Science, Intro to Compilers; Intro to AI; Advanced Data Structures; Algorithms
- Member: Association for Computing Machinery; Multi-Agent Reinforcement Learning Reading Group; History Undergraduate Association

Skills and Attributes

- Languages: Python, Java, Racket, OCaml, C, Rust, Ruby, HTML, CSS, JavaScript, SQL
- Frameworks: Bootstrap, jQuery, Plotly.js
- Tools and Environments: Linux, VS Code, Eclipse IDE, version control (Git/GitHub)
- Coding Skills: Functional programming, debugging, good code readability

Programming Projects

Comet Statistics (HTML, CSS, JS, Python, SQL) (Web Dev Intern at UMD, Jun 2023 – Dec 2023)

- Uses Plotly.js to render comet discovery, orbital element, and observation statistics in graph form
- Used Python to create an automated backend script that pulls from a local PostgreSQL database and multiple external databases; accounts for numerous subtleties in the way comet data is represented
- Presented the site as a contributed talk at the 33rd annual ADASS conference on Nov 8, 2023
- https://sbnmpc.astro.umd.edu/cometInfo/

Personal Portfolio Website (HTML, CSS, JS) (Personal Project, Jun 2023 – Dec 2023)

- Designed a website (https://www.psmit.dev/) focusing on user experience and mobile readiness
- Used JavaScript to implement features including dark mode preference and nav bar animations
- Makes calls to GitHub's REST API to display the ten most recent site changes

Fraud Plus: Interpreter and Compiler (Racket, x86) (Intro to Compilers at UMD, Oct 2023 – Nov 2023)

- Implemented an interpreter and compiler for a subset of Racket as defined by course faculty
- Introduced variable scoping, requiring significant attention to proper use of the runtime stack
- Introduced error detection and a larger set of type definitions to create a more feature-rich language
- Used proper stack discipline with nested expressions, ensuring no conflicts with the environment
- Ported features from a smaller subset, ensuring compatibility with error and scoping functionalities

Work Experience

Web Development Intern (University of Maryland Department of Astronomy) (Jun 2023 – Present)

- Created a comet statistic site for the NASA Planetary Data System Small Bodies Node at UMD
- Creating a tool to automate converting from the "new" comet designation system to the "old" system
- Gaining a strong understanding of SQL, interacting with web APIs, and general web development