Pete Smith

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

Education

University of Maryland, College Park (Aug 2019 – Present)

- Bachelor of Science, Computer Science; Bachelor of Arts, History; Minor, Trumpet Performance
- Diploma Expected Dec 2024
- Cumulative GPA: 3.356 (Aug 2023)
- Relevant Coursework: CMSC430 – Intro to Compilers; CMSC421 – Intro to AI; CMSC420 – Advanced Data Structures; CMSC351 – Algorithms
- Member: Multi-Agent Reinforcement Learning Reading Group; History Undergraduate Association

Skills and Attributes

- Languages: Python, Java, C, Rust, Ruby, OCaml, Racket, HTML, CSS, JavaScript, SQL
- Frameworks: Bootstrap, jQuery, Plotly.js
- Tools and Environments: Linux, VS Code, Eclipse IDE, version control (Git)
- Coding Skills: Debugging, good code readability
- Other Skills: Written and oral communication, teamwork, critical thinking, customer service

Programming Projects

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

- Using Plotly.js to render comet discovery, observation, and orbital element data in graph form
- Using 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
- Preparing for presentation at ADASS Conference in Nov 2023; abstract submitted Sep 2023
- https://sbnmpc.astro.umd.edu/cometInfo/ (note: site still in development)

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

- Designing a personal website (https://www.psmit.dev/) with focuses on user experience and mobile readiness
- Using JavaScript to implement dark mode preferences, nav bar animations, and other features

Bloom Filter (Python) (CMSC420 at UMD, May 2023 – May 2023)

- Implemented insert, hash, rebuild, and search functions for a Bloom Filter
- Allows for arbitrary bit array length, number of hash functions, and max false-positive probability
- Automatically rebuilds the Bloom Filter when the false-positive probability is greater than the threshold as determined by a simplified, approximate probability formula

Work Experience

Web Development Intern (Univ. of Maryland) (Jun 2023 – Present)

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