

Thomas Huitema

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EDUCATION

University of Maryland

Bachelor of Science in Computer Science, Minor in Mathematics

Coursework: Object-Oriented Programming, Computer Systems, Compilers, Algorithms,
Theory of Computation, Discrete Structures, Linear Algebra

College Park, MD

Aug. 2023 – May 2027

TECHNICAL SKILLS

Languages: Python, Java, C, SQL (Postgres, MySQL), OCaml, JavaScript, Rust

Frameworks: Django, Flask, React Native, Bootstrap

Developer Tools: Git, Postman, DigitalOcean, Matlab, Linux

Libraries: NumPy, Pandas, Matplotlib, BeautifulSoup

EXPERIENCE

Student Software Engineer

Warriors Legacy Care, UMD App Development Club

Sep. 2024 – Dec. 2024

College Park, MD

- Built a full-stack mobile application for a non-profit to support veterans with long-term care, mental health services, and meals
- Led design of PostgreSQL database, defining tables and fields to use
- Developed a REST API with Flask for user management and appointment scheduling
- Leveraged React Native to create a seamless user experience

Research Intern

UMD Cooperative Institute for Satellite Earth System Studies

May 2024 – Aug. 2024

College Park, MD

- Developed a machine learning model to predict global soil moisture 6 times faster than existing models
- Built an efficient data pipeline to clean and grid billions of satellite data points using Python, NumPy, and Pandas
- Generated 50+ graphs and maps for analyzing the model's spatial performance using Matplotlib
- Presented work to groups of NOAA and UMD scientists

Technology Intern

Federal Baseball League

June 2022 – Sep. 2022

Vienna, VA

- Developed web pages to display game results, league schedules, and team standings using PHP
- Created and managed a MySQL database for securely storing league data and game results
- Harnessed Atlassian Confluence for code documentation and feature planning

PROJECTS

TerpAlert | *Python, Django, PostgreSQL, JavaScript, DigitalOcean, Git*

April 2024 – Dec. 2024

- Built a web application for students to receive alerts when the dining halls have their favorite foods
- Developed an asynchronous web scraper with BeautifulSoup to update PostgreSQL database and alert users
- Created a dashboard for users to manage alerts for their favorite foods
- Released public REST API with Django Rest Framework for public to access dining hall menu data
- Used by 300+ UMD students and featured in [The Diamondback](#) and [Price George's Community Television](#)

TomPython | *Rust, Python*

Nov. 2024 – Dec. 2024

- Developed a Python interpreter with Rust to deepen understanding of Python's type system and syntax while enhancing proficiency in Rust
- Implemented core Python constructs including conditional statements, functions, variables, and math expressions
- Wrote a parser to generate an Abstract Syntax Tree to validate the syntax of Python code

Handwriting Classifier | *Python, Tensorflow, Keras, NumPy, OpenCV, Matplotlib*

Feb. 2021 – May 2021

- Developed a neural network machine learning model with Tensorflow and Keras to classify handwritten letters
- Achieved over 99% classification accuracy against 10,000+ test images
- Built a user interface using Tkinter and Matplotlib for real-time handwriting classification