Andrew Wang

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EDUCATION

University of Maryland, College Park, MD

Bachelor of Science in Computer Science, Minor in Statistics

GPA: 4.0/4.0

Relevant Coursework: Design and Analysis of Computer Algorithms, Introduction to Data Science, Introduction to Machine Learning, Database Design, Introduction to Probability Theory, Theory and Methods of Statistics

TECHNICAL SKILLS

Languages: Python, JavaScript, C, Java, SQL, Matlab, Rust, x86 assembly

Database Technologies: Postgres, MongoDB

Web Development: Node.js, Express.js, RESTful API, JSON, React.js, HTML, CSS Data Science and Machine Learning: Pytorch, NumPy, pandas, scikit-learn, Matplotlib

Cloud and Containerization: Docker, AWS EC2

Software Engineering: Database Design, Data Structures and Algorithm Design, Systems Programming

PROJECTS

MoneyWatcher (Full-Stack Project)

- Built a personal finance management web application. Key features include custom spending reports, budget rules, and automated alerts.
- Integrated Plaid API to track users' bank transactions. Utilized MongoDB for the database and implemented the backend server using Node.js and Express.js. Designed and developed the MoneyWatcher REST API. Created a simple React UI and deployed as a Docker container to AWS EC2.
- Live Demo: http://moneywatcher.andrewtheterp.com

Doodles and Character Classifier

- Used Pytorch to train two models to classify doodles (Quick, Draw! dataset) and letters/digits (EMNIST dataset).
- Developed a web application using React and Node that enables users to classify their images in real-time as they draw, with the option of running the models directly in the browser or on a server.
- Live Demo: http://imageclassifier.andrewtheterp.com

Gitlet

• Wrote a Git like version control system in Java. Developed core operations such as add, commit, and branch.

Fannie Mae Loan Solution (Bitcamp 2023)

- Optimized a greedy algorithm to filter, sort, and group loans while maximizing total loan size.
- Tested on 1.4 million loans and won 2nd place in the Fannie Mae Challenge. Implemented the algorithm in Python using NumPy, pandas, and Matplotlib.
- View the project at devpost.com/software/fannie-mae-loan-solution.

EXPERIENCES

Teaching Assistant

September 2023 - Current

Expected May 2026

Computer Science Department, University of Maryland

- Aided in teaching CMSC216 Introduction to Computer Systems and CMSC132 Object-Oriented Programming.
- Conduct office hours to help students with programming assignments and course topics. Proctor exams and grade homework.

Undergraduate Student Researcher

August 2022 - May 2023

First-Year Innovation and Research Experience (FIRE), University of Maryland

• Engaged in Genome Computing research. Used PyMOL and Python to visualize and analyze DNA-protein interactions.