

Andrew Wang

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EDUCATION

University of Michigan – Ann Arbor

Graduation Date: May 2026

B.S. in Computer Science + Bachelor of Business Administration

GPA: 3.88/4.00

- **Coursework:** Data Structures and Algorithms, Web Systems, Computer Organization, Discrete Math, Foundations of Computer Science, Business Analytics and Statistics, Linear Algebra, Machine Learning (W25), Computer Vision (W25)
- **Organizations:** Alternative Investments Club (Desk Head), Michigan Student AI Lab, Michigan Data Science Team

EXPERIENCE

ESI Group

Farmington Hills, MI

AI/ML Intern

June 2024 – Aug 2024

- Designed reinforcement learning models in Python using PyTorch, Stable Baselines 3, and Gymnasium, creating a custom environment to interface with ESI's vibroacoustic simulation software VA One, implementing proximal policy optimization to minimize sound pressure levels in vehicle cabins by altering noise control treatment on 3D models
- Wrote a script library using Pandas, PySide2, and VA One's Python API to automate the creation of materials and noise control treatments, export simulation results to Excel, and make changes to model properties based on user input

1 Plus 1 Ventures

Chicago, IL

Software Engineer Intern

Feb 2024 – June 2024

- Built a full-stack project management and legal compliance web application, using React for front-end and Firebase for back-end, employing Google Maps API and ArcGIS to provide relevant regulatory information based on geography
- Implemented user authentication and CRUD functionality in Firestore's document database, enabling users to create, read, update, and delete projects, querying for legal documents and governing agencies based on project attributes

Rocket Mortgage

Detroit, MI

Software Engineer Intern

May 2023 – Aug 2023

- Created a JavaScript program using ServiceNow's Configuration Management Database API to automate the remediation of 3600+ duplicate parent-child relationships within the ServiceNow CMDB, reducing data inaccuracy metrics by 60%
- Produced Microsoft Excel reports to monitor MID Server activity and wrote internal documentation detailing the server-decommission process, assuming the responsibilities of a senior business analyst on a two-week leave of absence

PROJECTS

Instagram Clone

Fall 2024

- Created an Instagram-like web app using React for front-end and Flask for back-end, leveraging a MySQL database to handle post creation, account management, and user authentication, deploying the app on AWS EC2 for live testing
- Integrated REST API endpoints for creating client-side dynamic pages and updating likes, comments, and followers in real-time, with session-based access control to restrict actions to authorized users, ensuring secure data modification

Sneaker Ecommerce App

Summer 2024

- Developed a basketball shoe storefront for iOS and Android, using Flutter and Express.js to implement scrolling product carousels, category filtering, page navigation, and a complete shopping cart system with Provider for state management
- Constructed a fully functional checkout process by integrating Stripe for secure payment processing, utilizing Express.js backend to facilitate real-time payment validation, manage discount codes, and ensure seamless interaction with Flutter

Forum Post Classifier

Spring 2023

- Built a machine learning classifier to process student forum posts from CSV files, leveraging the Bag of Words language model to transform text into feature vectors and predict the category of each forum post with a 87% success rate
- Programmed a custom templated Map class in C++ on top of a Binary Search Tree as the underlying data structure, implementing recursion and iterators to store and retrieve large datasets, enhancing classifier performance efficiency

ADDITIONAL

- **Languages and Frameworks:** C++, C, Python, HTML/CSS/JavaScript, Java, React, Dart, Flutter, PyTorch, AWS
- **Interests:** Freshwater Fishing Enthusiast, Tennis and Pickleball Player, Poker Novice, Top 200 in Pokemon Showdown