Andrew Wang

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EDUCATION

University of Michigan − Ann Arbor Graduation Date: May 2026

BS in Computer Science + Bachelor of Business Administration *GPA: 3.88/4.00*

- **Coursework:** Data Structures and Algorithms, Discrete Math, Computer Organization, Web Systems (F24)
- **Organizations:** Michigan Student Artificial Intelligence Lab, Alternative Investments Club, Michigan Data Science

EXPERIENCE

ESI Group Farmington Hills, MI

AI/ML Intern June 2024 − Present

- 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
- Developed a script library using Pandas, PySide2, and VA One's Python API to automate the creation of materials and noise control treatments from Excel files, export simulation data to Excel, and edit 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 NoSQL database, enabling users to create, read, update, and delete projects, querying Firestore 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

Sneaker Ecommerce App Aug 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
- Implemented 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

Spotify Music Recommender Feb 2024

- Developed a song recommendation program in Python using Numpy, Pandas, and Scikit-learn, analyzing Spotify streaming data from students to identify listening patterns based on songs, artists, and genres to predict music taste
- Implemented collaborative filtering to predict user preferences by analyzing music preference patterns between users

Forum Post Classifier Apr 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 70% success rate
- Programmed a custom templated Map class in C++ utilizing a Binary Search Tree as the underlying data structure, implementing recursion and iterators to efficiently store and retrieve large datasets, enhancing classifier performance

SKILLS

- **Languages and Frameworks:** C++, Python, HTML/CSS/JavaScript, React, Flutter, Pandas, PyTorch
- **Additional:** Freshwater fishing enthusiast, tennis and pickleball player, poker novice, top 200 in Pokemon Showdown