Alexander Zhang

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EDUCATION

University of Michigan **May 2026**

*Bachelor of Science in **Computer Science** & Bachelor of Science in **Statistics** — 3.7/4.0 GPA*   *Ann Arbor, MI*

Relevant Coursework: *Data Structures and Algorithms, Intro to Computer Organization, Intro to Data Structures, Discrete Math; Expected by 2025: Web systems, Intro to Operating Systems*

EXPERIENCE

Software Engineer Intern **May 2024 – Present**

Maize Lab *Ann Arbor, MI*

- Launched v1.0 of responsive web application in an Agile Environment using React and Node.js to generate user-specific URLs and routing data from user dataset to create unique profile-linked QR Codes for over 500 users
- Developed a script in JavaScript dynamically generating QR codes from URLs received via postMessage, converting them to PNG format and sending it back to the parent site for seamless integration with AWS RDS
- Initialized Express router in Node.js to handle user dashboard linkage with PostgreSQL database using Sequelize ORM to retrieve user data and implemented conditional rendering for private and public dashboard views

Software Engineer Intern **Mar 2024 – May 2024**

Ethereal Realms Co. *Minneapolis, MN (Remote)*

- Engineered RESTful API prototype using Node.js and Express.js for employee information management through SQLite3 database enabling CRUD on employee data handling for over 25 employees optimizing user experience
- Optimized user engagement by refining company website and experiencing full web application development cycle with Bootstrap and SQL leading to acquisition of two major clients and attracting investment of $10,000

Product Development Intern **Aug 2024 – Sep 2024**

Phygtl - Silicon Valley Startup *Palo Alto, CA (Remote)*

- Supported commercialization of AI, AR, and Blockchain technologies for mobile application of Web3 social media platform allowing users to create digital objects while maintaining data privacy through user data decentralization
- Curated and managed targeted list of 20,000+ executives through HubSpot and Excel, constructing custom outreach sequences presenting products to investors and partners to drive Phygtl's growth and expansion efforts

AI Research Intern **Oct 2023 – Jan 2024**

University of Michigan School of Public Health *Ann Arbor, MI*

- Enhanced Python-based chatbot leveraging Django optimizing data workflows for 70 employees through AI-driven automation and development of backend scripts and unit tests decreasing company idle time by 30%
- Established Python script to upload files and send data to specified URL endpoint allowing for parsing and saving of generated code and patient data into Python and CSV files while handling server responses for data management

PROJECTS

MyManager

- Deployed full-stack project management application using React, Node.js, Next.js, Tailwind CSS, MongoDB; Utilized Context API to efficiently manage global state and improve client-server interactions
- Implemented Clerk for secure user authentication and real-time WebSocket updates, providing live notifications and immediate task status updates in a user-centric project management tool, ensuring data consistency across sessions

Machine Learning Post Categorization

- Implemented a machine learning classifier, automatically categorizing forum posts for data organization and retrieval efficiency through a Multi-Variate Bernoulli Naïve Bayes model training on a dataset of archived posts
- Trained classifier to compute log-probabilities for forum post categorization based on previous frequencies of post content and post topic correlation and applied to real-world datasets with verified accuracy of up to 83.15%

TECHNICAL SKILLS/INTERESTS

Languages: C/C++, JavaScript (React, Next, Node, Express), Python, TypeScript, HTML, Tailwind CSS, SQL
Technologies: Git, VS Code, Visual Studio, Jupyter Notebook, AWS
Interests: Saxophone, fitness, tying hand-tie blankets, Ping-Pong, Supercell Games, skiing, rowing, Mandarin