

# 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 using React.js generating user-specific URLs by reading in registration data and routing data from user profile 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
- Engaged with 5+ corporate venture capital representatives from various Fortune 50 companies to showcase Phygtl's value proposition, securing 41% response rate among contacts with 67% taking further steps in partnership

### 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

### Stock Market Analysis

Dec 2023 – Mar 2024

- Built a stock market analysis forecasting tool in Python with Tensorflow and Keras to train/predict stock prices based on historical data, moving averages, and volatility indicators, resulting in an RSME as low as 0.0091
- Coordinated communication with five cross-functional teams to construct an optimized model, demonstrating strong interpersonal and teamwork skills; contributed key insights fostering a collaborative work environment

### Machine Learning Post Categorization

Feb 2024 – May 2024

- 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++, Python, SQL, JavaScript, HTML/CSS

**Technologies:** Git, VS Code, Visual Studio, Ubuntu, Jupyter Notebook

**Interests:** Saxophone, fitness, tying hand-tie blankets, Ping-Pong, Supercell Games, skiing, rowing, Mandarin