

# Zhanglu (Ansel) Wang

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## EDUCATION

### New York University

*Master of Science in Information Systems*

**New York, NY**

Sept. 2021 – May 2023

### University of California Santa Barbara

*Bachelor of Science in Computer Engineering*

**Santa Barbara, CA**

Sept. 2017 – Jun 2021

## WORK EXPERIENCE

### Walmart | *Software Engineer*

**Sunnyvale, CA | Sept. 2024 – Present**

- Implemented backend services using **Node.js**, **Express** and **MongoDB** to monitor end-to-end (E2E) item health across Walmart's internal product platforms, ensuring seamless product flow from creation to live listing.
- Developed a robust product creation pipeline using **Node.js**, **RESTful APIs**, **MongoDB** to automate item onboarding, SKU, GTIN generation, and metadata enrichment, streamlining multi-channel product listings across Walmart's ecosystem.
- Built automated monitoring and reporting tool with **Node.js cron jobs**, **MongoDB Aggregation Framework** to track real-time item health, flag listing issues, and support proactive resolution for internal QA and operations teams.
- Created a **Slack chatbot** using **Node.js**, and **Slack API** integrated with internal monitoring services, to provide real-time updates, handle product listing exceptions, and improve operational efficiency across merchant and item creation teams.

### Sigillum | *Fullstack Software Engineer*

**New York, NY | Sept. 2022 – Jan 2023**

- Developed a responsive, SEO-friendly web application using **React**, **SCSS**, **Material UI**, **Node.js**, and **MongoDB**, with reusable components, dynamic routing (**React Router**), and enhanced UI/UX across user profiles, administration pages, and surveys.
- Built robust backend services with **Express** and **MongoDB**, including **RESTful APIs**, **Google Cloud Storage** integration for large file management, and a high-speed PDF generation service using **PDFkit** and **wkhtmltopdf**, reducing quote processing time to under **2 seconds**.
- Implemented real-time communication features using **Socket.IO**, **Redis**, and **MongoDB**, enabling efficient chat between brokers and clients; developed secure user management flows with approval/rejection capabilities and input validation using **Validator.js**.
- Ensured application quality and performance through unit testing (**Jest**, **React Testing Library**), state management with **Redux Toolkit**, **React Hooks** for data handling, and optimized API interactions using **Axios** interceptors.

### Pathover | *Fullstack Software Developer*

**San Francisco, CA | Jun 2021 - Jan 2022**

- Built and optimized multiple task management features using **React**, **Redux**, **Bootstrap**, and **Axios**, including task assignment, truck scheduling, and file uploading pages, significantly improving logistics coordination and user experience.
- Developed a backend service with **Node.js**, **Express**, **Google Maps API**, and **MapQuest API** to calculate optimized delivery routes and implemented complex geospatial queries, **reducing daily mileage by 20%** and enabling real-time location tracking.
- Engineered a real-time notification system using **AWS Lambda**, **WebSocket**, and **Socket.IO**, enhancing instant communication between drivers and managers; implemented **JWT** and **Local Storage** for secure user authorization.
- Ensured high code quality and performance by creating reusable **React components**, implementing **React.memo** for rendering optimizations, and incorporating unit testing with **Jest** and **React Testing Library** across critical features.

### Gaoyu Group Medical Division | *Software Developer*

**Chengdu, China | Jul 2020 – Sept. 2020**

- Developed user-oriented self-monitoring **Android** mobile application using **Android Studio** based on user requirements gathered from the Qionglai Donghua Hospital that reduced COVID-19 transmission risk between patient and doctor by **65%**.
- Coordinated with cross-functional teams to implement, diagnose and user test the mobile application with specific hospital and self-monitoring medical metrics for government reporting.

## PROJECTS

### Stock Market Fluctuation Vs. Public Sentiment on Social Media | *Machine Learning*

- Investigate the relationship between public sentiment and the stock market fluctuation, therefore to predict the market using the sentiment analysis on social medias' feeds including **Twitter APIs** and **Google Trend APIs**.
- Implemented the **VADER sentiment analysis** that calculate the positive, negative, neutral, compound score of feeds, processed **over 40,000 feeds**.
- Implemented machine learning models using Linear Regression, Logistic Regression, Random Forest and Vector Regression, result a **RMSE of 6.21**.

## TECHNICAL SKILLS

- **Programming:** JavaScript, TypeScript, HTML / CSS.
- **Frameworks:** React, Angular 2+, NodeJS, Docker, Nginx, Google Cloud, Bootstrap, Material UI, React Testing Library.
- **Tools:** AWS, Mongoose, NPM, VS Code, Postman, Git, Jira, Heroku, JWT, Bcrypt, Mocha, Chai.
- **Databases:** MongoDB, Firebase, MySQL, Oracle