

Chenyang Zhang

victorzhang0218@gmail.com | cyzhangv@umich.edu | +1 929-235-3841 | +86 18016070218
Personal Website: <https://portfolio-vic123.vercel.app/>

EDUCATION

COLUMBIA UNIVERSITY IN THE CITY OF NEW YORK
Master of Science, Data Information

New York, NY
Current

UNIVERSITY OF MICHIGAN, ANN ARBOR
Bachelor of Science, Double Major in Data Science and Mathematics
Cumulative GPA: 3.8/4.0 || **Awards:** National Honor Society

Ann Arbor, MI
2021-2025

TECHNICAL SKILLS

Languages: Java, Typescript, Python, C++, TypeScript, SQL || **Frameworks:** Spring Boot, Flask, React, Node.js, LangChain
Data & Cloud: Kafka, HBase, PySpark, AWS, GCP, PostgreSQL, HDFS, Redis || **DevOps:** Docker, Kubernetes, Git, CircleCI, Prometheus || **Specialties:** Microservices, Agent Workflow Development, RAG Systems, SEO Optimization

WORK EXPERIENCE

ALIBABA *Alibaba International – International Merchandise Team*
Software Development Engineer

Shanghai, China
Jun 2025 – August 2025

- Built **real-time ETL pipelines** User Insight System with trigger-based updates to maintain dynamic profiles of **50M+ users**. Exposed them via Spring Boot microservices, enabling precise multi-Agent audience segmentation. Boosted targeting precision by **20%**, increasing personalization ROI
- Built a **custom React Reconciler renderer** for cross platform code reuse in **TypeScript** (HostConfig + adapters) to run **React Native** UI in **WeChat Mini Program** with near-zero business changes; reused logic via **Redux + Redux-Saga**, and boosted performance with **static/dynamic templating**, diffing, **batched/throttled setData**, **virtualized lists**, **lazy loading**, and perf profiling (FPS/memory).

MEITUAN *Kuailü Division – B2B Food Distribution Platform*
Software Development Engineer

Shanghai, China
Mar 2025 – Jun 2025

- **Developed a supply chain optimization system:** integrating image recognition and **AI-Agent** analysis. Structured handwritten menu images using Gaussian Blur and Median Filter preprocessing. Leveraged **LangChain** to combine RAGQuery, behavior analytics, and retrieval tools for multidimensional insights..**Engineered prompts** to optimize the AI-Agents dynamic decision-making, reducing procurement costs by 20%, and minimizing supply chain risk for 40%.
- **Real-time cancer rehabilitation data platform:** Engineered a **Lambda architecture** to support personalized recovery for **>200K patients**. Designed pipelines to process billions of nutrition/exercise data points monthly. Trained XGBoost models achieving **87%** prediction accuracy on patient weight trends, helping optimize dietary planning. Delivered backend via Spring Boot & MyBatis Plus and automated batch scheduling with Apache Airflow, **improving job reliability by 30%**.

UNIONPAY *Engineering Technology Department*
Software Development Engineer

Shanghai, China
June 2024 – August 2024

- **NL2SQL & Knowledge Q&A Platform:** QWEN embeddings for vectorization. Implemented a multi-retrieval strategy (BM25 + QWEN dual-tower + personalized retrieval), **boosting query precision by 28%**. Enhanced ranking via Wide & Deep modeling and Qwen1.5-32B-Chat transformer, **reducing irrelevant results by 45%**.

PROJECTS

Notate <https://vw-ai.github.io/Notate.ai> **IOS/MACos Full-stack**

2024

- Notate is a macOS productivity app built in **Swift/SwiftUI** with system-wide keyboard monitoring via CGEventTap for cross-app note capture. Features encrypted **SQLite storage** (AES-256), Claude **AI integration** for autonomous task processing, reactive MVVM architecture with Combine, and deep system integrations (EventKit, Contacts, Accessibility APIs). Implements thread-safe database operations, multi-trigger pattern detection with CJK/IME support, reversible AI actions, and comprehensive analytics. ~23,400 lines of Swift with a token-based design system and secure Keychain encryption.

WhereToMeet www.wheretomeet.org **Web/Full-stack**

2024

- A full-stack web, cross platform application using **Next.js, React, TypeScript, FastAPI, and PostgreSQL** that helps users find optimal meeting locations. Implemented features including real-time venue discovery with Google Maps API, multi-tier caching with Redis, user authentication, event management, and voting systems. Optimized API performance through database query optimization and efficient caching strategies,

Rental Agent Intelligent Data Platform *Full-stack*

2025

- Built a WeChat-based rental assistant with **Wechaty SDK + N8N Workflow + Postgres**, transforming chats into structured user profiles via JSON Schema. Designed intent scoring to trigger auto group creation and integrated scheduled **web crawling** for real-time rental listings, enabling personalized recommendations and large-scale analytics.

ADDITIONAL

Languages: Fluent in Chinese, English **Certifications:** SQL Advanced Certificate ID: C1BA102716FD