Jiyi Zhu
Full Stack Software Engineer
Master of Science in Computer and Mathematical Sciences
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Summary

Full-stack engineer trusted to deliver and stabilize production systems under real-world constraints. With hands-on experience across Japan, China, and Europe, I make sober engineering decisions—adopting new technologies, including generative AI, only when they measurably reduce risk or accelerate delivery in production.

Education

Degree	Institute	Year
M. Graduate School of Information Science	Tohoku University	2023.04-2025.02
Entrepreneurship Program	University of California, Davis	2024.02-2024.03
B. Computer Science and Information Systems*	Warsaw University of Technology	2018.10-2021.02
B. Digital Media Technology*	North University of China	2016.09-2021.07

* Completed under a 2+2 joint degree (double degree) program between North University of China and Warsaw University of Technology.

Experience

- Fuji Soft Inc. — July 2025 - Apr 2026
  Application Engineer (POS System Refactoring) — Kanagawa, Japan
  - Refactored a legacy C-based POS system into a multi-platform Flutter architecture, adapting pointer- and driver-dependent logic into object-oriented Dart design and redesigning C-style asset and memory handling with adaptive Flutter APIs, breaking down oversized functions and improving runtime performance by ~20% and maintainability by ~30%.
  - Reduced debugging and validation cost by 2–3× by unifying physical devices and virtual environments across full-self, semi-self, and assisted-self registers, automating startup and database update flows, and validating real hardware via Tera Term and UltraVNC.
  - Lowered business risk in live store operations by enforcing single-source-of-truth data flows for monetary values, eliminating ambiguous definitions and defensive fallbacks, reducing finance-related defect recurrence by ~60%.
- SenseTime Group Limited — March 2021 - May 2022
  Front-end Interactive Engineer — Shanghai, China
  - Built browser-based coding game pages for K–12 students where block-assembled Python learning logic drives in-browser game behavior, applying state-driven and component-based design patterns to structure reusable game logic with PIXI.js, Egret, and LayaBox, reducing refactor and maintenance effort by nearly half.
  - Integrated the game pages into the React-based SenseTime Education Kit by injecting raw JavaScript logic and embedding runtime content via iFrame, using Chrome DevTools to validate behavior and improving runtime performance and interaction responsiveness by ~25%.
- Huawei Technologies Co., Ltd. — May 2020 - Feb 2021
  Front-end Engineer — Warsaw, Poland
  - Maintained Huawei's internal Northeast Europe digital service platform using Vue.js and Ant Design (Vue), serving 80+ users, fixing UI issues, aligning frontend data with backend APIs, and improving usage efficiency by ~15%.
  - Built internal tools for the Huawei GDE tool platform using Python, Excel libraries (pandas / openpyxl), and tk-based UI, automating batch processing of Excel data from the digital service platform and accelerating workflows by ~60%.

Projects

- Internal Sales Search Platform with RAG-based Retrieval — Jun 2025 – July 2025
  Colorful Inc. — Tokyo, Japan
  - Developed an internal sales support system using Next.js, AWS Lambda, and DynamoDB, enabling fast retrieval of project requirements and engineer profiles and reducing manual coordination time by ~60%.
  - Implemented RAG-based semantic search with Pinecone, OpenAI, and Cohere, improving requirement normalization and matching accuracy by ~20% while supporting stable same-day deployments via Docker and Vercel.

Technical Skills

- Programming Languages: JavaScript / Node.js, Dart, Python, HTML5, C#, C++, Java, Go
- Databases: PostgreSQL, Amazon DynamoDB
- Frameworks & Tools: Flutter, React, Vue.js, Next.js, AWS Lambda, Docker, Vercel
- Operating Systems: MacOS & iOS, Windows 11, Linux & Android

Licenses and Certifications

- Japanese Language Proficiency Test - N1 — 2024
- Toefl - 81
- Fundamental Information Technology Engineer Examination (Japan, national IT certification) — 2024
- Class 1 Driver's License (Standard Vehicle)

Miscellaneous

- Registered Musician in NetEase music platform, Music Production, Genres: EDM, Future Pop, Trance, etc. — 2018