

Jenny Zhao

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EDUCATION

- **B.S., Massachusetts Institute of Technology, Cambridge, MA** Aug 2019 – May 2023
GPA: 5.0/5.0
 - Major in Computer Science
 - Minor in Japanese, Minor in Music

EXPERIENCE

- **Cobbs Creek Healthcare** Mar 2024 – Present
Software Engineer Newtown Square, PA
 - Built and automated data pipelines with Databricks Jobs using PySpark to process, validate, and audit 50+ pharmaceutical datasets, eliminating manual handoff steps and sped up recurring workflows by more than 5x.
 - Developed weekly anomaly detection and data quality pipelines to identify unusual volumes, missing data, and cross-source inconsistencies across DDD, XPO, and claims datasets, expanding monitoring coverage by nearly 4x with reusable SQL/Python checks, k-means clustering, and isolation forest models.
 - Leveraged OpenAI models to extract insights, ratings, and KPIs from unstructured recording transcripts, creating a production-ready pipeline for transcription, translation, and structured extraction optimized using LangChain, Pydantic, and RAGs.
 - Constructed a dockerized backend infrastructure for a dementia care AI application with LLM-powered conversations, Qdrant vector database retrieval, Postgres-backed user data, and AWS S3 object storage.
- **CAPCOM** Jun 2023 – Dec 2023
Software Development Intern Osaka, Japan
 - Developed internal WPF desktop tools using C++ and C# to streamline asset creation, transformation, and production workflows integrated into CAPCOM's in-house game engine.
 - Designed and implemented inverse kinematics components to improve hand animation rigging and object interaction realism, focusing on tests and optimizations for stable performance, memory usage, and production readiness.
- **Infosys Limited** Jun 2022 – Aug 2022
Cloud Computing Intern Remote
 - Developed a lightweight JavaScript SDK to support provider-agnostic management and provisioning of common cloud resource services across AWS, Azure, and GCP, reducing provider-specific implementation overhead and improving cross-cloud flexibility.
- **Better Off Brunching** Jan 2020 – Aug 2021
Software Engineering Intern New York, NY
 - Developed backend matching algorithms to assign users to brunch tables based on questionnaire responses, preferences, and compatibility factors using clustering techniques.
- **MIT Media Lab, Opera of the Future Group** Feb 2021 – Aug 2021
Research Assistant Cambridge, MA
 - Prototyped interactive musical toys using conductive materials and Arduino microcontrollers to capture pressure-based user input and transmit MIDI signals.
 - Built an interactive web application focusing on accessible education using JavaScript, HTML, and CSS to teach music theory through hands-on engagement.

PROJECTS

- **JobPilot - AI Job Search Agent**

Python, FastAPI, Pydantic, LLMs, Structured Outputs

- Built a full-stack AI job application tracker that parses job postings into structured fields using LLM-assisted extraction and stores them for search, filtering, and status tracking.
- Developed FastAPI backend endpoints and Pydantic data models for job postings, application statuses, extracted requirements, and practice interview questions.

- **Cat Nutrition App**

React Native, Expo, TypeScript, Zustand, SQLite

- Built a React Native and Expo cat nutrition tracking iOS app with Zustand state management, and SQLite local storage for scheduled feedings, food logging, calorie targets, and weight check-ins.
- Designed reusable React Native components and refined core UI/UX patterns to improve consistency, maintainability, and mobile usability across the app.

- **Personal Portfolio Website**

Next.js, Cloudflare Pages, Cloudflare Workers, Turnstile, Resend

- Built and deployed a portfolio website with a serverless contact workflow, using Cloudflare Workers for form handling, Turnstile for bot protection, and Resend for email delivery.

- **Phaser Browser Game**

JavaScript, Phaser, GitHub Pages

- Built an interactive browser game using JavaScript and Phaser with custom gameplay, themed visuals, and audio interactions.
- Implemented game mechanics including gacha-inspired interactions, archery minigames, character/event triggers, interactive dialogue, and state-based gameplay progression.

SKILLS

- **Languages:** Python, SQL, JavaScript, TypeScript, Java, C++, C#, HTML, CSS
- **Frameworks & Tools:** FastAPI, Pydantic, React, React Native, Expo, Next.js, Zustand, Git, Docker, Linux
- **Data & AI:** OpenAI API, Databricks, AWS, LangChain, PostgreSQL, Qdrant, scikit-learn, PyTorch, Tableau

AWARDS

- 1st place Design for RoboBoat Competition with MIT Arcturus Team Jan 2023 – May 2023
- 1st place Health focused project and 2nd place overall at MakeMIT Hackathon Feb 2022