

Jianxiao(Shawn) Cai

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Education

University of California, San Diego <i>M.S. in Computer Engineering</i>	La Jolla, CA Sep 2024 – Expected Mar 2026
Shanghai Normal University <i>B.Eng. in Electronic Information Engineering</i>	Shanghai, China Sep 2020 – Jun 2024

Work Experience

ivector <i>Software Engineering Intern</i>	Sacramento, CA Jul 2025 – Sep 2025
<ul style="list-style-type: none">Designed and implemented the phone terminal interaction pages in Unity, integrating backend logic for user navigation.Developed C# login functionality with Firebase authentication, enabling secure user sign-in and session management.Set up Firebase database and authorization rules, ensuring consistent data flow and reducing access errors by 20%.Mapped Unity page assets with backend code, improving app responsiveness and cutting loading times by 15%.	
Sentari <i>Software Engineering Intern</i>	New York City, NY Jun 2025 – Jul 2025
<ul style="list-style-type: none">Developed modular service using cosine similarity and topic matching to track emotional continuity in user transcripts.Built a TypeScript parser extracting user intents from 200+ diary entries with over 90% pattern-based NLP accuracy.Used 768-dim MiniLM embeddings with storage to simulate full NLP pipeline for cold-start and long-term users.Implemented clean architecture with utility separation, typed interfaces, and comprehensive pipeline logging.Proposed workflow enhancements: clearer task breakdown, structured ownership, and standardized code reviews.	
FORVIA HELLA <i>Advanced Engineering Intern</i>	Shanghai, China Jan 2024 – May 2024
<ul style="list-style-type: none">Worked on BLDC motor control system development using Model-Based Design (MBD) and embedded integration.Built motor control logic in Simulink and auto-generated code for Arduino, reducing low-level coding time by 40%.Designed and validated motor driver circuits, ensuring firmware-hardware compatibility across control states.Developed Simulink models for speed, rotational direction, and fault behavior, targeting real-time deployment.Established a reusable MBD workflow adopted by the team, improving consistency and reducing test iteration cycles.	

Projects

Community Discussion Platform	Jan 2026 - Present
<ul style="list-style-type: none">Developed a Spring Boot-based community forum supporting post publishing, commenting, and likes features.Designed and implemented REST-style APIs for dynamic client-server interactions and frontend integration.Architected the application using MVC architecture (Controller-Service-DAO) to improve modularity and maintainability.Configured structured logging with level-based output to enhance debugging efficiency and system observability.	
Fyyur – Artist & Venue Booking Web App	Aug 2025 - Sep 2025
<ul style="list-style-type: none">Developed a full-stack web application for managing artists, venues, and shows using Flask and PostgreSQL.Implemented relational database models with SQLAlchemy, supporting relationships among artists, shows and venues.Integrated Flask-Migrate to manage schema changes with migrations.Used Thymeleaf templates to deliver a responsive UI for managing shows and viewing upcoming/past events.	

Skills

- Programming Language:** Python, C/C++ , Java, Shell, SQL, Go, Matlab, C#, JavaScript, TypeScript, HTML
- Framework and Tool:** Git, Linux, Docker, MySQL, PostgreSQL, MyBatis, Flask, REST APIs, Spring Boot, AWS