Rex Chao

📞 858-408-5697 | ✉ rexchao27@gmail.com | 💼 linkedin.com/in/rexchao | 🐙 github.com/seraph27 | 🌐 seraph.tw

EDUCATION

University of California San Diego Sep 2021 – Dec 2025 (Expected)

B.S. in Computer Science and Mathematics | Major GPA: 3.9/4.0 *La Jolla, CA*

- **Coursework**: Design & Analysis of Algorithms; Recommender Systems & Web Mining; Machine Learning Algorithms; Advanced Data Structures; Data Science in Practice; Intro to Stochastic Processes; Intro to Numerical Analysis (IP).

EXPERIENCE

Lunabill — Y Combinator F25 Oct 2025 – Present

Founding Software Engineer *San Francisco, CA*

- Led development of an observability dashboard for mission-critical claims processing from concept to production, built on Next.js/React (UI), Python services, Neon Postgres, and cloud queues/workers for scalability and easy upkeep.
- Built a prompt-engineered LLM pipeline to 3-way classify **55k+** call transcripts, automating human audits and **cutting cost by an estimated $24k/yr**, now driving daily review on high-volume claims.
- Refactored approximately **30,000 lines of code** across **50+** commits in the first month and migrated our apps to a single repository, enabling reusable functions and single CI/CD.

Foxconn iAi Jul 2025 – Sep 2025

Machine Learning Engineer Intern *Hybrid*

- Optimized a real-time factory voice-agent pipeline (Whisper ASR + LLaMA + RAG) enabling natural language queries over maintenance logs.
- Cut ASR cold-start latency by 15% via multi-threaded model loading and warm-ups and reduced end-to-end latency by 25% with streaming tweaks (sliding windows, adaptive chunking, VAD) validated by A/B tests.
- Deployed an interactive demo to validate workflow fit in factory environments, received positive feedback internally.

Formosa Dental Clinic May 2025 – Jul 2025

Software Engineer (Contract) *Taipei, Taiwan*

- Shipped a full PWA for operations—scheduling, billing, patient records, and inventory with low-stock alerts.
- Designed the data model and migrated **36k+** patient records and system has processed **$1M+ in transactions.**
- Built a secure data pipeline with automated balance reconciliation and audit trails to ensure integrity and reliability.
- Implemented automated backups (Vercel Cron + Dropbox API): daily snapshots, 30-day retention, and disaster recovery.

Systex Software Jul 2024 – Sep 2024

Software Developer Intern *Taipei, Taiwan*

- Automated a CT scan preprocessing workflow for a research project on liver tumor detection via computer vision (DICOM ingestion → inference → annotation → export), saving 100+ hrs/week of manual work.

PROJECTS

Tsukiyomi — AI Japanese Light-Novel Recommender | *Python, PyTorch, Hugging Face, SentencePiece, Milvus*

- Learns a personal known-word profile from quick word marking to recommend chapters matched to a learner's level.
- Implemented dual-tower retrieval (text embeddings + user-vocab embeddings) with Milvus ANN; re-ranks via unknown-word rate, LM predictability, and genre similarity.
- Indexed 60k+ chapters; returns top-10 in **200ms**.

LEADERSHIP & ACHIEVEMENTS

Officer, Competitive Programming Club @ UCSD (Jane Street Sponsored) Feb 2024 – Present

- Organized and presented advanced algorithm workshops to over 30+ members; revamped club website.
- ICPC SoCal Regionals 2024: #17/88.

Competitive Programming Achievements Present

- LeetCode: 2303 rating (Top 0.5% of 17M+ users); Codeforces: 1804 rating (Top 7% globally).

TECHNICAL SKILLS

Stack: C++, Python, TypeScript, SQL; PyTorch, React/Next.js; PostgreSQL; Docker, GitHub Actions, Vercel, GCP, Linux.