

ALEXANDER CHIN

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Education

University of California San Diego

B.S. in Mathematics-Computer Science

Sep 2025 – Jun 2028

GPA: 3.7/4.0

B.S. in Cognitive Science, Spec. Machine Learning & Neural Computation

Technical Skills

Programming Languages: C++, Python, Java, Go, TypeScript/JavaScript, SQL

Frameworks & Tools: FastAPI, REST, PostgreSQL, AWS (Lambda, Lightsail, S3), MongoDB, Docker, Git/Github

Coursework: Data Structures & Algorithms, Software Engineering, System Programming, Machine Learning, Graph Theory

Work Experiences

Essenergy Inc.

Milpitas, CA

Software Engineer, Contract

Jun 2026 – Sep 2026

- Automated processing for 30+ weekly orders across third-party portals by engineering an end-to-end Python/Playwright workflow covering authentication, invoicing, inventory management, shipping-label generation, and tracking reconciliation.
- Saved 2+ hours weekly by automating weekly accounting workflows by automating invoice and remittance, generating per-merchant Excel reports with payment-lag analytics, and producing QuickBooks files delivered by email.
- Achieved fully unattended execution by deploying the dockerized workflow on AWS Lightsail with headless runs, automated email summaries, screenshot-based failure diagnostics and dynamic storage management

Visual Learning Lab

La Jolla, CA

Research Assistant

Mar 2026 – Present

- Expanded the lab's internal python toolkit across 5+ model families by implementing CLIP, Hugging Face, DINO, multimodal, and layer-specific embedding support with parallel and asynchronous batch processing.
- Characterized model geometry and clustering on a 15,000-image dataset by analyzing RDMs and Spearman correlation matrices generated across 54 model-metric-embedding configurations covering various vision models, distance metrics, and embeddings
- Improved reproducibility of infant eye-tracking research by processing data from 120+ participants and 7+ GB of files through iCatcher+ validation, server-based workflows, similarity analysis, drawing retrieval, and documented end-to-end pipelines.

IDX Exchange

Remote

Data Analyst intern

Jun 2026 – Sep 2026

- Enabled scalable real-estate analysis across 400,000+ CRMLS records by building a reproducible Python pipeline that automated ingestion, monthly consolidation, residential filtering, validation, feature engineering, and IQR outlier removal.
- Delivered interactive market intelligence through 2 Tableau dashboards by generating analysis ready feature tables covering market metadata, closing activity, geographic trends, and agent/office performance.

Projects

SafeStreets – Street Safety Consultant and Advocacy

- Won Best Use of Claude at UC Berkeley AI Hackathon 2026 out of 200+ projects and 1000+ hackers
- Architected a evidence-grounded civic intelligence system that analyzed satellite and Street View imagery independently from community reports, then cross-validated detected hazards against crash records, 311 complaints, news, and council documents.
- Converted street-safety findings into actionable interventions by grounding hazards, matching fixes to grants, identifying responsible officials, and generating before/after renders visualizations, social posts, and ready-to-send council letters.

TSS++ – Full Stack Course Planning Platform

- Built an open-source alternative to UCSD's new student system in response to its limited usability and reliability; Served 200+ users by deploying a full-stack application with MongoDB storage, FastAPI backend services, and a React/TypeScript frontend.
- Supported prerequisite discovery across 6,000+ UCSD courses by engineering a AST-style prerequisite representation, regex-based normalization, and backend BFS/DFS traversal with depth limits and cycle detection.

CrAllyons – AI-Powered Multiplayer Drawing Game

- Served as Scrum Master by coordinating frontend, backend, inference, and scoring workstreams; wrote starter PyTorch model-training code, defined the shared game-state schema, and scaffolded frontend-backend communication.
- Developed the system architecture for an multiplayer QuickDraw! game that converted canvas strokes into grayscale inputs, generated image embeddings, and scored drawings against centroids using cosine similarity over real-time game sessions.

Leadership

Association For Computing Machinery

La Jolla, CA

Projects Director & AI Projects Mentor

March 2026 – Present

- Oversee quarterly project life cycle across 8 SWE, AI, Design Teams through progress checks and standups; Host workshops, project showcases, and kickoffs attracting over 250+ students
- Mentor AI project teams as scrum master, managing team, writing starter code, and coordinate weekly meetings