

SHANG-CHEN HSIEH

shangchenhsieh0702@gmail.com | [linkedin.com/in/shang-chen-hsieh-598167222/](https://www.linkedin.com/in/shang-chen-hsieh-598167222/) | github.com/ShangchenHsieh | shangchenh.com

Education

San Jose State University

Master of Science in Computer Science

San Jose, CA

August 2025 – Present

San Jose State University

Bachelor of Science in Computer Science

San Jose, CA

August 2022 – May 2025

Experience

San Jose State University

Research Assistant

July 2025 – Present

San Jose, CA

- Conduct research in dynamic rupture modeling using SeisSol, running large-scale simulations on high-performance computing clusters.

Bercerita

Software Engineer Volunteer

April 2025 – September 2025

Fremont, CA

- Engineered and integrated core functionalities for KIRA, a gamified English-learning platform, enhancing engagement among Indonesian elementary students.
- Orchestrated Agile workflows within a cross-functional team of 3 engineers, 1 UI/UX designer, and 1 project manager, accelerating development to achieve **80% product completion within 4 months**.
- Designed and implemented a education material storage system with S3, hash-values, and reference counting, leading into a **storage cost reduction by roughly 75%**.
- Developed a fully automated CI/CD pipeline leveraging GitHub Actions, Docker, AWS S3, and AWS Elastic Beanstalk, with integrated unit testing, reducing deployment overhead by approximately **120 man-hours per season**.

Developers' Guild

Backend Developer

August 2021 – May 2022

Cupertino, CA

- Coded a blog posting system with REST apis, ensuring the scalability and efficient resource utilization using Springboot framework.
- Optimized SQL queries for efficient data management and query execution, resulting in a roughly **11%** improvement in query performance and response times.

Projects

Preview Your Professor

January 2025 – April 2025

- Built a full-stack web application integrating a third-party professor review site, optimizing the class search pipeline for San Jose State University students, reducing information retrieval time **from 5 minutes to 10 seconds**.
- Improved accessibility by developing model-based text-to-speech and AI-driven summarization services.

NexGen

December 2024 – January 2025

- Engineered a web-based application to automate cover letter generation using Flask framework, OpenAI API, and Puppeteer/PDFKit for seamless LLM-based content creation and PDF export
- Architected an AI-driven agent for dynamic PDF generation and instant download, reducing user time spent in job application workflows from on an average of **3 minutes down to 20 seconds**.

Certification

AWS Cloud Practitioner (Verification Code: a498774ff43e47b083ded31bf49d1bd0)

NVIDIA Getting Started with Deep Learning (Certificate ID: L877N1kHT-uJvAKJLVxfXw)

Technical Skills

Languages: Python, SQL, Java, JavaScript, TypeScript, C/C++, HTML/CSS, Bash Script, XML, JSON
Frameworks: FastAPI, Django, Flask, Springboot, Next JS, React JS
DB & DBMS: MySQL, MySQL Workbench, Postgres, pgAdmin4, Alembic
Tools: Git, Postman, Docker, AWS, Kubernetes, unix-based OS, Jira, Confluence