

# SHANG-CHEN HSIEH

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## 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

### Bercerita

*Backend Engineer*

**November 2025 – January 2026**

*Fremont, CA*

- Improved quiz-taking experience by implementing CloudFront caching, reducing image load times by over 90% (2–3 seconds to 150 ms) when accessing from Indonesia.
- Refactored API codebase to modularize endpoints, improve readability, and simplify future feature development.

### San Jose State University

*Research Assistant*

**July 2025 – Present**

*San Jose, CA*

- Conducted Cascadia Subduction Zone research in dynamic rupture modeling using SeisSol, running large-scale simulations on high-performance computing clusters.

### Bercerita

*Software Engineer*

**April 2025 – October 2025**

*Fremont, CA*

- Engineered and integrated core functionalities for KIRA, a gamified English-learning platform, enhancing engagement among Indonesian students.
- Orchestrated Agile workflows within a cross-functional team of 7 members, accelerated development process to deliver 90% product completion within 4 months.
- Designed and implemented a education material storage system with AWS S3, hash-values, and reference counting, leading into a storage cost reduction by approximately 80%.
- Developed a fully automated CI/CD pipeline by leveraging GitHub Actions, AWS ECR, AWS S3, and AWS Elastic Beanstalk, with integrated unit tests, reducing deployment overhead by around 30 man-hours per month.

## 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 15 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