Shiwei Chen

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Education

Georgia Institute of Technology M.S in Computer Science, youngest student in program history.	Dec 2025
University of California, Berkeley B.A in Applied Mathematics, graduating at age 18.	Dec 2024 3.73/4.00
Experience	

Uncountable - Incoming Software Engineer - San Francisco, CA

Heimdall Data - Software Developer Intern

- Improved customer Time-to-value (TTV) by simplifying virtual database setup GUI in Heimdall Proxy by introducing caching checks, resulting in ~50% fewer clicks to starting database initialization.
- Corrected login history inaccuracies in application, achieving a ~50% increase in precision by refactoring authentication workflow through Spring Security and Angular and writing mock authentication tests in JUnit.

ZoneUp - Contract Software Engineer

- Directly collaborated with cross-functional teams (UX Designer, CEO, CTO) on a full-stack landing page by writing 6,000 lines of code using React, Express, and PostgreSQL incorporating 3D models and animations. [site]
- Designed a cost-efficient AWS Architecture to handle 2,000 monthly users using Lambda and RDS.
- Introduced DevOps productivity tooling by automating CI/CD with AWS CodePipeline & configuring auto scaling EC2 instances with Elastic Beanstalk and Docker, reducing deployment & autoscaling time from 10min to <1 min.

Good Work Hub - Freelance Software Developer

- Reduced deployment time of Good Work Hub applications from 10 min to 2 min and compute cost by ~40% by designing and developing a new CI/CD pipeline from the company codebase to a DigitalOcean droplet.
- Implemented safeguards for code stability by configuring linters & test-runners for incoming PRs with GitHub Actions and documenting unit test & style guidelines in Confluence, increasing unit test code coverage by 50%.

Django Software Foundation - Open Source Contributor

• Co-authored optimization effort for count() & exists() Queries in the Diango ORM by writing ~200 lines to remove extraneous SQL inner join calls, reducing processing time for certain count and exists queries by ~90%. [PR]

Projects

GenAl Scenery Creation with Stable Diffusion

• Latent Diffusion model fine tuned with LoRA to generate Miyazaki style background scenery. Model trained with Weights & Biases experiment tracking, data from BeautifulSoup web scrapes, and deployed on AWS EC2.

Competitive Programming Teaching Portal

• In-house learning portal for when I was a programming teacher, integrating JWT authentication, Stripe Payments API, and embedded code editor. Built using Express and PostgreSQL, and hosted with AWS Lambda & RDS.

Digicache Photo Sharing Platform

• React app that allows users to create and share pins at custom locations, created with Google Maps API, GraphQL & MongoDB. Project won a Major League Hacking Award at the Technica 2022 Hackathon.

Skills

Tooling: AWS, Docker, GH Actions; React, Express, MongoDB; PyTorch, Weights/Biases, HuggingFace, BeautifulSoup Languages: Python, Javascript, Java, C++, SQL (MySQL, PostgreSQL), Matlab, R; Typescript, HTML, CSS. Coursework: Data Structures, Machine Structures, Machine Learning, Linear Algebra, Discrete Math, Probability

Awards and Certifications

Machine Learning: DeepLearning.Al Specialization (2024) Cloud: AWS Solutions Architect Certification (2024) USACO Gold Qualifier: ranked top 10% of 18k contestants by writing efficient algorithms in Java/C++.

May 2023 - Jul 2023

Mar 2023 - May 2023

lan 2025

Aug 2023 - Feb 2024

May 2023 - Jul 2023