SHENGBO JIANG

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GitHub | LinkedIn | Kaggle

EDUCATION

Kehillah Jewish High School — Palo Alto, CA | Expected 2027
Previously attended Hamden Hall Country Day School, Connecticut, 2023–2025

EXPERIENCE & LEADERSHIP

Athena AI Labs — Software Developer Intern | Sep 2025–Mar 2026

- Developed a college-advising application with a SwiftUI interface, Python API, and retrieval-augmented generation system for questions about admissions, financial aid, and transfer pathways.
- Built document ingestion and retrieval across five ChromaDB collections, with source citations, specialized question handling, and checks for insufficient supporting information.
- Implemented student-profile integration and personalized recommendation workflows; published CollegeAdvisor-RAG on Hugging Face with model documentation and usage instructions.

Rematter Cooperation — Cofounder & Software Engineer | 2024–Present

- Built and released Releaf—Ultimate Sustainability, an iOS application that encourages sustainable habits and helps users explore ways to reuse everyday materials, track carbon emissions, engage in the dedicated online community; reaching 5,000+ downloads.
- Developed Django backend features for user accounts, Waterdrop rewards, achievements, and notifications, alongside supporting AI services for image analysis and sustainability information retrieval.
- Helped raise $2,000 in project funding; the team earned a top-two placement in the 2025 China High School Social Innovation Competition and Incubation Camp.

LCG-China, iGEM — Wiki & Entrepreneurship Team Lead | 2024

- Led wiki development and entrepreneurship work for a synthetic biology team that earned an iGEM Gold Medal.
- Directed the team's website presentation, organizing scientific and business material into accessible explanations of the project, methods, and findings.
- Led development of the ExploreAid business plan, covering customer needs, competing products, market positioning, production costs, and commercialization risks for a proposed bacterial-cellulose bandage.

Science Seed Project — Founder & Developer | 2024–Present

- Founded an initiative to make science education more accessible to children with limited educational resources.
- Built a learning platform with course and video management, student and teacher accounts, quizzes, and translation workflows; pursued sign-language technology as a separate research effort.

Kehillah Sailbot — Software Contributor | 2025–2026

- Contributed to autonomous sailing software and its physics simulator, including navigation, steering control, wind filtering, and state estimation.
- Implemented control and simulation improvements for evaluating boat behavior, including model-predictive steering with rudder movement constraints.

RESEARCH & COMPETITION PROJECTS

Pioneer Academics — Student Researcher | Jun–Sep 2026

Paper: "Remote Sensing and Interpretable Machine Learning for Neighborhood-Level Urban Heat Vulnerability in Phoenix, Arizona." Submitted and accepted by supervising professor; unpublished.

- Analyzed 369 Phoenix census tracts using Landsat imagery, land-cover indicators, and census demographics to compare surface heat with broader neighborhood vulnerability.
- Found that only 17 of the 37 highest-priority tracts overlapped between temperature-only and multidimensional rankings; used clustering to identify three vulnerability profiles and inform cooling interventions.

ZenithSync Assay Planner — Developer & Researcher | 2026

AI4S Open Innovation: AI for Life Science

- Developed a Gaussian-process tool for selecting treatment and control measurements in organoid drug-response experiments, accounting for uncertainty shared across measurements.
- Evaluated the method retrospectively across 6,496 assay contexts representing 100 patient IDs; exact selection reduced mean squared prediction error by 32.82% versus random selection and 0.66% versus greedy selection under the same model.
- Built a local browser interface and command-line workflow, documented reproducible evaluation procedures, and published the project as a Kaggle hackathon writeup.

ZenithSync Developer Agent — Developer | 2026

Google — The Gemma 4 Developer Agent Competition

- Developed repository-task evaluation and training-data preparation tools, including source tracking, test-result validation, and checks for overlap between development and evaluation data.
- Implemented deterministic training schedules, token accounting, and recovery checks; submitted an entry to the competition.

Sign-Translator — Independent Research Project | 2025–Present

- Developed experimental models connecting language and motion through graph neural networks, contrastive learning, and conditional diffusion.
- Built a synthetic-data training baseline and data-validation tools, with explicit distinctions between experimental motion generation and linguistically validated American Sign Language translation.

ADDITIONAL ACTIVITIES

Carbon Footprint Club, Hamden Hall — Technical Lead | 2023–2025

Built web applications and databases for a student carbon-tracking initiative and coordinated student contributions.

Math Team, Hamden Hall — Team Leader | 2024–2025

Led practice sessions and helped teammates prepare contest strategies.

HONORS

- iGEM Gold Medal, LCG-China team — 2024
- Top-two team placement, China High School Social Innovation Competition and Incubation Camp — 2025
- Highest Scorer, Greater New Haven League — 2024

TECHNICAL SKILLS

Languages: Python, Swift, Java, JavaScript, TypeScript, SQL

Software: SwiftUI, Django, FastAPI, React/Next.js, PostgreSQL, Git, Docker