Andy Yilin Tang

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EDUCATION

Stanford University **September 2022 – June 2026**
B.S. in Computer Science *Stanford, CA*

- **GPA:** 4.0
- **Relevant Coursework:** Modern Mathematics: Continuous Methods, Computer Organization and Systems, Probability Theory (A+), Modern Algorithmic Toolbox, Machine Learning (A+), Computer Vision
- **Involvement:** TreeHacks Organizer, Robotics Club President, Stanford Debate Society, Stanford Birdwatching Club

TECHNICAL SKILLS

- **Languages/Frameworks:** C++, Go, Java, TypeScript (React, Express, Tailwind), Python, PyTorch, some OpenGL
- **Tools:** Linux, Bash, Docker, Kubernetes, Git, GitLab, Grafana, Google Cloud Platform, Wireshark

WORK EXPERIENCE

Replit **June 2023 – September 2023**
Software Engineering Intern – Platform

- Built analytics for Replit Deployments, a hosting service for **thousands of websites**. Modified custom DNS proxy, Bigtable schemas, GraphQL queries, Linux containers, Cloud Tasks, and Mailgun messaging. See blog post.
- Load-tested web proxy, NATS messaging, and GCP project creation with **millions of requests**.
- Developed LLM-powered Deployment debugger with **80% accuracy** and Replit AI agent prototype.

Cloudflare **June 2022 – August 2022**
Software Engineering Intern – Magic *Champaign, IL*

- Benchmarked and optimized performance of customer-facing API using **Go**, reducing latency by **96%**.
- Implemented Magic User Role to eliminate **more than two hundred** excess permissions.

Fermilab **April 2020 – June 2022**
Student Researcher *Batavia, IL*

- Developed customized scripts in **C++** and **Python** to generate and process over **two million** particle collision events.
- Presented dark photon search results at the **American Physical Society** (April Meeting: Quarks to Cosmos).

University of Illinois Chung Lab **July 2019 – December 2021**
Student Researcher *Champaign, IL*

- Automated brain damage analysis, accelerating epilepsy work by **one week per dataset**. Published in PNAS 118*(51)*.

PROJECTS

Teachable Agents **June 2023**
Developer *Berkeley, CA*

- Created a web teachable agent using Whisper, GPT-4, and Hume AI to help people practice lessons/presentations.

Solar Flare Prediction Model (CS 231N) **April 2023 – Present**
Developer *Stanford, CA*

- Aggregated 350,000 magnetograms covering one solar cycle of data, as well as a decade of magnetogram data.
- Applied **3D CNNs** and **Vision Transformers** to predict X-ray flux based on time-series magnetogram images.

Junior High Math Contest **January 2020 – August 2022**
Contest Chair and Tech Lead *Aurora, IL*

- Developed contest web platform from scratch using **Express**, **Bootstrap**, and **EJS templates** on **Google Cloud**.
- Coordinated eight-person team to run day-long in-person (2020, 2022) and virtual (2021, 2022) contests, involving a total of more than **700** students from across four states as well as dozens of volunteers.

SELECTED HONORS & AWARDS

- USA Computing Olympiad Gold, Top 150 at USA Physics Olympiad and US National Chemistry Olympiad