Andy Yilin Tang

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EDUCATION

Stanford University **September 2022 – June 2026**
B.S. in Computer Science, GPA 4.0 *Stanford, CA*

- **Coursework:** Systems (CS107), OS Principles (CS111), Algorithms, Probability Theory, Machine Learning, Robot Perception, Natural Language Processing, Reinforcement Learning
- **Involvement:** TreeHacks Organizer, Robotics Club President, Stanford Debate Society, Stanford Birdwatching Club

WORK EXPERIENCE

Genesis Therapeutics **June 2024 – September 2024**
Software Engineering Intern

- Designed templating module to improve diffusion model performance on apo-holo and holo-holo cross-docking.
- Created autoscaling serving architecture for in-house ML models across 17 property prediction tasks.

Quilter **February 2024 – June 2024**
Machine Learning Intern

- Benchmarked image-based architectures for generalization in circuit board placement with reinforcement learning.
- Designed routing-informed placement pipeline, outperforming existing heuristic-based placement on routability.

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

- Designed/Built Replit Deployments analytics, handling millions of requests for thousands of websites. See blog.
- Developed LLM-powered Deployment debugger with 80% accuracy and Replit AI agent proof-of-concept.

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

- Reduced latency on customer-facing API handling millions of requests by 96% using Go.

RESEARCH EXPERIENCE

Stanford AI Lab (Intelligence through Robotic Interaction at Scale) **October 2023 – Present**
Student Researcher, PI: Chelsea Finn

- Architected and implemented robot policy adaptation module using VLM reasoning capabilities, preprint: https://arxiv.org/abs/2407.02666, submitted to 2024 International Conference on Robotics and Automation (ICRA).
- Currently researching imitation learning robustness to perturbations through history-aware policies.

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

- Generated and processed two million particle collisions (C++/Python), quantifying signal from theorized particles.
- 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 analysis of brain scarring from epilepsy, saving one week per dataset. Published in PNAS 118*(51)*.

SELECTED PROJECT

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 SKILLS

Bash, Linux, C++, Distributed Systems, Docker, Google Cloud, Go, Kubernetes, Postgres, Redis, Python, PyTorch, Reinforcement Learning, Robotics/ROS, Neural Radiance Fields, JavaScript, React/TypeScript