Andy Yilin Tang

C++, Docker, GCP, Go, Kubernetes, Python (NumPy, Pandas, PyTorch, TF, etc.), JavaScript, React/TypeScript
(+1) 217-377-3508 ✶ andyyt2@stanford.edu ✶ andyta.ng ✶ github.com/thewindsofwinter ✶ linkedin.com/in/andyytang

EDUCATION

Stanford University **September 2022 – June 2026**
B.S. in Computer Science, GPA 3.9 *Stanford, CA*

- **Coursework:** MATH61CM, CS107 (Systems), Probability Theory (A+), Machine Learning (A+), Machine Learning Theory, Computer Vision, 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 – Present**
Intern

- Created **autoscaling serving architecture** for in-house ML models which process **thousands of molecules**.
- Improving **diffusion-based drug potency prediction** by training on molecular dynamics simulation data (MISATO).

Quilter **February 2024 – June 2024**
Machine Learning Intern – Part-Time

- 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

- Architected and built Replit Deployments analytics, used by **thousands of websites**. 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*

- 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 **novel robot policy adaptation module** using VLM reasoning capabilities, preprint: https://arxiv.org/abs/2407.02666, submitted to 2024 Conference on Robot Learning (CoRL).

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 HONORS & AWARDS

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