

Alan Tian

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EDUCATION

Georgia Institute of Technology

May 2027 (Expected)

B.S. in Computer Science (Intelligence/Theory Concentration)

Atlanta, GA

- GPA: 4.0/4.0
- Relevant Coursework: Artificial Intelligence, Robotics, Algorithms, Data Structures, Discrete Math, Linear Algebra I & II, Applied Combinatorics, Number Theory, Multivariate Calculus, Probability & Statistics

EXPERIENCE

Amazon Web Services

May 2025 – Aug. 2025

SDE Intern - Codewhisperer

Seattle, WA

- Led design and implementation of infrastructure to rotate GitHub credentials across 8 CI/CD pipelines for Artificial Intelligence Amazon Q IDE extension.
- Automated redeployments triggered by secret updates, reducing operational effort by 66% (6 to 2 dev-hours).
- Packaged setup into reusable construct for future end-to-end Personal Access Token rotation system by leveraging TypeScript and AWS services.

Undergraduate Researcher - Robot Learning Lab

May 2024 – Present

Georgia Tech

Atlanta, GA

- Built Visual Language Model framework to generate robotic action policies; improved performance by 20%.
- Trained reinforcement learning agents using robosuite, robocasa, and rlkit; evaluated PPO and SAC.
- Benchmarked 4 SOTA RL algorithms with 97% task accuracy.

Research Assistant - Computational Genomics

Jul. 2021 – Aug. 2023

Columbia University

New York, NY

- Used transformer embeddings (ESM) to classify 120K+ protein variants by pathogenicity.
- Achieved AUROC of 0.88 using cross-validated classifiers (CNN, MSA Transformer).

PROJECTS

BostonHacks Hackathon (1st Place) | Django, Natural Language Processing, OpenAI API

Nov. 2024

- Built automatic photo-to-LaTeX converter using OpenAI APIs and Django web stack.
- Reduced time required to transcribe handwritten equations into LaTeX by over 50%.
- Won 1st place out of 13 teams for innovation in STEM documentation tooling.

ML@Purdue Hackathon | Python, Pytorch, Natural Language Processing

Oct. 2023

- Reimplemented TextPSG technique using contrastive learning and text graph generation.
- Used Stanford CoreNLP and image segmentation with entity grounding on 120K COCO images.
- Performed ablation studies on 3 activation functions and deep network architectures.

GT Experimental Rocketry | Python, SQL, Grafana

Aug. 2023 – Present

- Led Mission Control dashboard for real-time GPS telemetry; collaborated with avionics and software teams.

PUBLICATIONS

Fan, X., Pan, H., Tian, A., Chung, W. K., Shen, Y., **SHINE: protein language model-based pathogenicity prediction for short inframe insertion and deletion variants**, *Briefings in Bioinformatics*, 2022, bbac584, <https://doi.org/10.1093/bib/bbac584>.

TECHNICAL SKILLS

Languages: Python, Java, SQL, R, HTML/CSS, Type/JavaScript, Bash, LaTeX

Frameworks: PyTorch, TensorFlow, Sklearn, Keras, Django, FastAPI, Robosuite, Robomimic

Tools: Git, Docker, wandb, MuJoCo, Grafana, VSCode, IntelliJ, Pycharm

Other: AWS, Deep Learning, Reinforcement Learning, Data Analytics, Research Computing