

Troy Tian

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EDUCATION

University of California, Los Angeles

GPA: 3.64

Bachelor of Science in Computer Science; Bachelor of Arts in Asian American Studies

Sep. 2025 – Jun. 2029

EXPERIENCE

Research Fellow

Jan. 2026 – present

Supervised Program for Alignment Research

Remote

- Conduct AI governance metaresearch, formalizing framework to analyze and forecast the risk of capabilities spillover. Rigorously examine historical cases (e.g. RLHF), forging strategies for differential safety progress.
- Lead interactive platform, managing deployment, UX, and automated development pipeline. Integrate with survey/contribution workflows. Contribute to framework principles, spillover metrics, uncertainty model, evals.

AI Scholars Fellow

Jan. 2026 – present

ACM AI @ UCLA

Los Angeles, CA

- Utilize JEPA/LeJEPA architecture to fine-tune a CLIP-style multimodal encoder, leveraging global semantic alignment from image-text pairing while correcting for spatially precise information.
- Conduct ablations and experiments in latent-space alignment to formulate loss functions, including formulating regularised hybrid objectives that combine contrastive and predictive loss.

Research Assistant

Jan. 2026 – present

Smart Grid Energy Research Center, UCLA

Los Angeles, CA

- Build a benchmarking methodology for LLM inference power consumption under realistic traffic conditions, with a micro-macro validation framework. Quantify transient power surges under heterogeneous request distributions, including temporal burstiness and nonlinear GPU utilization.
- Validate hardware-parameterized power lookup dictionary for sensitivity analysis.

Software Intern

Nov. 2023 – Apr. 2024

Web Surfing Studios

Remote

- Programmed a simulated B2C booking site with customizable admin dashboard and password testing/management systems. Built and unit-tested full-stack C# solution with MVC scaffold, passing queries against EF Core context.
- Implemented 6 reusable essential features across 25+ pull requests, accounting for customer- and vendor-facing UI/UX. Provided concrete proof-of-concept by feasibility and viability standards for potential future iterations.

Head Robotics Project Intern

Jun. 2023 – Jul. 2023

Yang Lab, University of Rhode Island

Kingston, RI

- Constructed and programmed autonomous model cars, developing navigation systems on embedded Raspberry Pi computers. Coordinated \$10k+ of total funding and other logistics as team lead to support a 7-intern group.
- Engineered computer vision processing with collaboratively-developed Python AI algorithms. Automatically ran a challenging track including sharp turns and obstacles, reaching 95% successful runs on a scalable system.

PROJECTS

Bipedal Walker MLP

2025

- Trained a multi-layer perceptron in Gymnasium, using RL to solve a complex physical environment.
- Researched improvements including entropy regularization, observation normalization, Generalized State-Dependent Exploration, and parallel environment sampling; conducted ablation studies for scientific rigor.
- Optimized 290+ mean reward across 700 episodes via hyperparameter tuning; plotted statistics with TensorBoard.

Civilization VI Modification Development

2024 – Present

- Implement from-scratch mods for *Civilization VI*, integrating novel content with cross-compatible, multi-version support. Create 3 playable civilizations with self-designed features.
- Script relational data using SQL to engineer asset characteristics, supported by XML config and detailed parameter definitions. Validate and debug for a 100% crash-free player experience.

TECHNICAL SKILLS

Programming Languages: Python, C++, C#, Java, HTML/CSS/JavaScript/TypeScript, PHP, Swift, Ruby, Lisp

Technologies and Frameworks: PyTorch, scikit-learn, Statsmodels, Pandas, stable-baselines3, React, Node, Git, XML, SQL, Linux, Bash, Emacs, Regex