

Aditya Tadimeti

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EDUCATION

Stanford University

Stanford, CA

B.S. in Computer Science: Systems Track | Minor in Mathematics

Dec 2024

M.S. in Computer Science: Artificial Intelligence Track

Dec 2025

COURSEWORK

ML & AI: AI Principles & Techniques, Machine Learning, Natural Language Processing, Computer Vision

Math & Statistics: Linear Algebra, Matrix Theory, Multivariable Calculus, Probability, Statistical Inference, Info. Theory

Complexity Theory: Data Structures, Algorithms, Mathematical Computing

Systems & Security: Operating Systems, Networking, Parallel Computing, Systems for Machine Learning, Web Applications

WORK EXPERIENCE

Research Engineer @ Adobe Firefly | ML Research

June 2024 — September 2024

- Trained text-to-image, multimodal reward models. Fine-tuned diffusion models using RLHF techniques.

Member of Technical Staff @ Cohere | ML Research

January 2024 — April 2024

- Worked on model fine-tuning, data ingestion, evaluation metrics, and pretraining to improve reasoning in LLMs.

SWE @ Amazon | JavaScript, React, MySQL, Java, Git, AWS

June 2023 — September 2023

- Developed end-to-end fullstack service to automate supply-chain network graph cost updates, 10k+ lines of code written
- Built customer-facing UI, handled authenticated APIs, relational databases, service setup, deployed to production

SWE @ Oracle OCI | Java, Git, Docker, JavaScript

June 2022 — September 2022

- Overhauled fullstack, internal debugging tool used for resolving customer networking issues. Deployed to production.
- Queried internal key-value storage, updated backend server queries, modified API calls, and updated frontend search UI.

Data Science @ Project Ronin | Python, Databricks, spaCy, Transformers, PyTorch

April 2022 – June 2022

- ML and statistical analysis for clinical note analysis. Built end-to-end pipeline for sectionizing oncology notes. Annotated clinical notes and used transformer modeling + regex heuristic techniques. Deployed and shipped large-scale models.

ORGANIZATIONS

Stanford SNAP Group | ML Researcher

September 2024 —

- Advised by Prof. Jure Leskovec. Contributing to the development and training of 100B+ open-source genomic language model, working on ML systems, distributed computing, and machine learning architecture using H100 cluster.

Stanford Computation & Cognition Lab | ML Researcher

April 2024 —

- Researching and improving LLM reasoning through entropy analysis, natural language, and fine-tuning.

Stanford Graduate School of Business | ML + RL Researcher

April 2023 — April 2024

- Machine and Reinforcement Learning for data-driven forest management. Built software pipeline to remotely run forest simulations; used Q-learning and operations optimization techniques.

Stanford NLP Group | NLP Researcher

February 2023 — March 2024

- Researched the capability of LLMs to leverage linguistic information for prediction. Working to first-author publication.

Stanford CS Department | Senior Section Leader

April 2022 —

- TA for CS 106A/B (Python/C++). Received 100% on student evals, promoted to senior SL via program tenure.

UC Davis, MIT Sloan | ML Researcher

March 2019 – June 2021

- SOTA ML wildfire size prediction via Log. Regression, Decision Tree, Rand. Forest, SVM, Grad Boost., & CNNs.

PROJECTS

Generalized conditioning of diffusion models for indoor scenes | PyTorch

Spring 2024

- Conditioned and fine-tuned diffusion models for indoor, interior design scene generation.

Quantized, Pruned, and Accelerated GPT-2 Fine-tuning and Inference | PyTorch, GPU Infra

Fall 2023

- Implemented 8-bit quantized inference, iterative magnitude based pruning and speculative decoding for GPT-2.

Parallel NanoGPT | PyTorch, C++, OpenMP, ISPC

Fall 2023

- Optimized Attention via blocking, fusing, vectorization, and multithreading; implemented FlashAttention on NanoGPT.

TECHNICAL SKILLS

Languages: C++, C, Python, Java, R, JavaScript, HTML/CSS, C#, Dart, Swift

Frameworks & Tools: CUDA, PyTorch, React, Node/Express, Mongo, Git, Firebase, Pandas, NumPy, Caret, Keras

HONORS AND & AWARDS

Regeneron STS Scholar: One of 300/1760 receiving \$2000 in nation's most prestigious science contest (wildfire research)

Research Presentations: 2x First-author presentation at largest international Earth & Space research conference

Earth Science Olympiad: 4th place in US Earth Science Olympiad exam; invited to US national team summer training