Atharv Naphade

LinkedIn

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Education: Carnegie Mellon University School of Computer Science (B.S. Artificial Intelligence) 2025-2029

Technical Skills

LLM Research | Reasoning(CoT, ToT, MCTS, Verifiers) | Alignment techniques | RLHF | SFT(LoRa) | Diffusion Models | Olympiad Mathematics | C++ | Python | TensorFlow | PyTorch | HuggingFace | Java | Full-Stack | Machine Learning | Statistics & Data Science

Experience

Founder, IvySparkAI 2025

- Built full stack college application tool using LLMs with SFT on Reddit College Result data as well as RAG on student's essays to make efficient and accurate application suggestions and wholistic review.

ML Research Intern, ISU 2024-2025

- Proposed and Developed novel **unsupervised deep neural network** in python using few-shot YOLO detected trajectories from CCTV footage to segment road and lane boundaries with faulty and uncalibrated cameras.
- Built video vision Transformer to **detect and report risky driving** behaviors in real-time, improving urban traffic safety. **My proposed algorithm was deployed on 300 Highway Cameras Nationally.**

Nature Scientific Journal — Technical Author 2021 - 2023

- worked in**deep learning research team** to compute true COVID-19 death counts using past mortality data, LSTMs, Transformers, Decision Trees, and Monte-Carlo Methods, correcting for systematic death underreporting in India.
- Presented findings that India had under-counted deaths by 2.1 times, at the **G20 Global Health Summit** and recognized by the **National Leadership in Health (NLH).**

Aligned AI — Founder 2024

- Trained a **low-resource neural network in Tensorflow** built onto PoseNet-V3 to detect poor posture from low-resolution camera feeds. My algorithm is **Patent Pending**.
- Integrated a Small Distilled Language Model to generate real-time corrective feedback for users, achieving resource effecient, **high speed end-to-end model deployment to 5.5k+ Users.**

Stanford University Mathematics Camp — Mathematics Researcher Summer 2024

- One of 64 admitted to the most prestigious High School Mathematics Program, Collaborated with team of student researches to find new abstract-algebra proof to the wallpaper tiling problem.

Selected Awards

- Accepted to the Honors Masters Degree at Oxford University CS+Math, Declined offer.
- USACO **Gold Medalist** (Top 4% globally)
- **1st Place**, Stanford Math Tournament (Individual Category)
- Math Kangaroo **National Top Winner** (Top 20 of 35,000)
- 5× AIME Distinction (Top 2% Nationwide)
- Thomas J. Watson Memorial Scholarship ($8000)