Nattaput (Gorn) Namchittai

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Education

Stanford University

B.S. in Computer Science and B.S. in Mathematics (GPA: 3.972)

Stanford, CA

Anticipated Graduation: June 2027

Relevant Coursework: Data Structures and Algorithms, Machine Learning, Natural Language Processing, Reinforcement Learning, Computer Vision, Graph Machine Learning, Computer Systems, Computer Graphics, Linear Algebra, Multivariable Calculus, Probability Theory, Stochastic Processes, ODEs, PDEs, Fourier Methods, Statistical Methods, Real Analysis.

Experience

Google Summer of Code Program - Google DeepMind

June 2025 - September 2025

Remote

• Designed, implemented and tested the first benchmark for evaluating LLMs across all five foundational AI agent types. Under mentorship of DeepMind. Project: https://summerofcode.withgoogle.com/programs/2025/projects/1E6DMVwi

Stanford Artificial Intelligence Laboratory (SAIL) - SNAP Group

 ${\bf March~2025-Present}$

 $Machine\ Learning\ Researcher$

Google Summer of Code Participant

Stanford, CA

- Developing novel attention mechanisms to improve training efficiency. Part of a larger project to create the largest open-source language model for science that will be trained on a cluster of 1024 H100 GPUs. Advisor: Jure Leskovec.
- Analyzing attention patterns/clustering in LLMs and protein language models to improve attention masking methods.

Stanford Artificial Intelligence Laboratory (SAIL)

March 2025 - June 2025

Machine Learning Researcher

Stanford, CA

- Developed a novel semantic-spatial reasoning benchmark. Formulated a rigorous benchmark design, including details on scoring MLLMs, and system prompt designs/output restrictions to ensure fair testing. Advisor: Christopher Manning.
- Engineered a website using gradio for the benchmark. Designed tests and gathered data.

Stanford Novel Computing Systems Laboratory

April 2024 – June 2025

Machine Learning Researcher

Stanford, CA

- Developed resource-efficient ML classifiers and generative models, and novel optimization methods that utilize Hyperdimensional Computing/Vector Symbolic Architecture. Advisor: Sara Achour.
- Invented novel models and optimization methods. Creatively devised solutions that minimized time and space complexity in these models. Implemented parallel algorithms in Rust and Python. Created constraint-solving algorithms using Z3Py.

Stanford ACM (Stanford Association for Computing Machinery)

September 2025 - Present

Webmaster and Stanford ACM Officer

Stanford, CA

- Maintaining the Stanford ACM webpage: https://www.stanfordacm.org
- Organizing club events and activities including machine learning, full-stack development, and quant workshops.

Projects

Contrastive Test-Time Scaling - Project Lead

- Developed a novel reasoning model that scales with test-time compute more efficiently than state-of-the-art open-source reasoning models. Optimized the implementation using concurrent generation and parallelized hidden state extraction.
- Performed elaborate feature engineering such that inputs to the policy network are both rich in information and also position-agnostic, allowing the methodology to scale efficiently with token count at test-time.

Exploring Deep Behavioral Cloning trained on Synthetic MCTS Expert Data - Project Co-Lead

• Evaluated the viability of using Monte Carlo Tree Search to produce synthetic expert data for Deep Behavioral Cloning in the context of the game 2048. Implemented neural networks, and parallelized and optimized the training process.

Honors

International Biology Olympiad

• British Team Reserve Member for International Biology Olympiad (2022). Two-time Gold Medalist in British Biology Olympiad (2021, 2022; 10,000+ participants worldwide).

International Chemistry Olympiad

• Candidate for UK Team Member (2022) - finalist in the UK team selection process for the International Chemistry Olympiad. Two-time Gold Medalist in UK Chemistry Olympiad (2022, 2021; 8500+ participants worldwide).

Other Competitions: British Mathematics Olympiad, Cambridge Chemistry Challenge (2x Gold), UKMT Intermediate Mathematics Olympiad (Top 50), UKMT Senior Maths Challenge (4x Gold), UKMT Intermediate Maths Challenge (3x Gold), Intermediate Biology Olympiad (Gold), British Physics Olympiad IPC (2x Gold)

Technical Skills

Languages: Python, C++, C, Rust, Julia, R, JavaScript, TypeScript, SQL, Assembly

Technologies: PyTorch, TensorFlow, vLLM, Gemini API, OpenAI API, HuggingFace, Transformers, MCP, DSPy, LangChain, LlamaIndex, Neo4j, sklearn, Gymnasium, SB3, Slurm, AWS, GCP, pandas, NumPy, SciPy, Knowledge Graphs, RAG, together.ai, Blender, HTML, CSS, Postgres, MySQL, React, Next.js, Bash, Linux, Git, VS Code, Claude Code, Cursor