

Subhash Kantamneni

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Website: subhashk.com Google Scholar: [\[link\]](#) GitHub: github.com/subhashk01

EDUCATION

University of California, Berkeley

Prospective Ph.D. student in Computer Science

Berkeley, CA

Massachusetts Institute of Technology

August 2024 - June 2025

Masters of Engineering in Computer Science

Cambridge, MA

Advisor: Prof. Max Tegmark

Massachusetts Institute of Technology

August 2020 - June 2024

Bachelor of Science in Computer Science

Cambridge, MA

Bachelor of Science in Physics

Graduated with a 5.0/5.0 GPA

SELECTED PAPERS

[Language Models Use Trigonometry to Do Addition](#)

Subhash Kantamneni and Max Tegmark

Submitted to International Conference of Machine Learning (ICML) Main Conference 2025.

[Are Sparse Autoencoders Useful? A Case Study in Sparse Probing](#)

Subhash Kantamneni*, Joshua Engels*, Senthooan Rajamanoharan, Max Tegmark, and Neel Nanda

Submitted to International Conference of Machine Learning (ICML) Main Conference 2025.

[How Do Transformers Model Physics? Investigating the Simple Harmonic Oscillator](#)

Subhash Kantamneni, Ziming Liu, and Max Tegmark

Entropy and ICML 2024 Mechanistic Interpretability Workshop.

[OptPDE: Discovering Novel Integrable Systems via AI-Human Collaboration](#)

Subhash Kantamneni, Ziming Liu, and Max Tegmark

Physical Review E.

[Enhancing Predictive Capabilities in Fusion Burning Plasmas Through Surrogate-Based Optimization in Core Transport Solvers](#)

P. Rodriguez-Fernandez, N.T. Howard, A. Saltzman, **Subhash Kantamneni**, J. Candy, C. Holland, M. Balandat, S. Ament, A.E. White

Nuclear Fusion.

[NuCLR: Nuclear Co-Learned Representations](#)

Ouail Kitouni, Niklas Nolte, Sokratis Trifinopoulos, **Subhash Kantamneni**, and Mike Williams

ICML 2023 SynS and ML Workshop

SELECTED HONORS

MIT Physics Honor Society (Top ~10% of Physics Majors)

2024

Fulbright Scholarship Winner (Declined)

2024

Neel Nanda's MATS Stream (3% Acceptance Rate)

2024

Research Science Institute (RSI) Scholar

2019

WORK EXPERIENCE

Mobilus Labs

Jun – Aug 2022

Software Engineering Intern

London, UK

Developed speech transcription for Mobilus's bone-conduction communication headset, a TIME 2021 Top 100 Invention. Created an AI agent that warns users when they enter dangerous construction zones and automates machine checklists.

NASA Jet Propulsion Laboratory

Jun – Aug 2021

Exoplanet Discovery Group Intern

Pasadena, CA

Automated verification and validation for the EXCALIBUR exoplanet atmospheric analysis pipeline using ML. Explored classical machine learning and advanced data simulation techniques while writing production-level code.

TEACHING AND MENTORING EXPERIENCE

Presidential Advisory Cabinet

Aug 2023 – May 2024

Undergraduate Advisor

Cambridge, MA

Selected as one of four undergraduate advisors to MIT President Sally Kornbluth from a pool of over 50 candidates.

Advised during a tumultuous period in MIT history on issues like food insecurity, academic regulation, and managing a charged campus atmosphere in response to conflict in the Middle East.

Global Teaching Labs (South Korea, South Africa, Botswana, Bahrain)

Jan 2022/23/24

Teacher

Seoul, Johannesburg, Gaborone, Manama

Taught global STEM workshops to teenagers from varied socioeconomic classes over significant language barriers.

Codeveloped Arduino projects to introduce programming and engineering projects to illustrate physics concepts.