

VEDANG LAD

<https://vdlad.github.io>

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EDUCATION

Massachusetts Institute of Technology

Cambridge, MA

Master of Engineering in Electrical Engineering and Computer Science

May 2024

Bachelor of Science in Physics

May 2023

Bachelor of Science in Electrical Engineering and Computer Science

May 2023

Relevant Coursework: Deep Learning, Computer Vision, Natural Language Processing, Reinforcement Learning, Algorithms, Inference, Quantum Information Science, AI Safety and Values

WORK AND RESEARCH EXPERIENCE

Cleanlab

May 2022 – July 2023

ML engineer/researcher at MIT startup that develops open source, data-centric AI algorithms for data scientists to effectively improve their data quality and produce more reliable ML models.

- Created novel algorithms to identify errors in popular computer vision datasets, such as Cityscapes, using only the predicted probabilities from a trained model.
- Contributed to the Cleanlab open-source codebase and benchmarked algorithms for first-authored publication submitted to ICML 2023. <https://arxiv.org/abs/2307.05080>

MIT Brain and Cognitive Sciences

December 2021 – June 2022

Conducted research under the guidance of Dr. Joshua Tenenbaum and Dan Yamins to analyze the gap in intuitive physics between humans and novel computer vision models.

- Worked with Stanford, MIT, IBM cognitive scientists to generate state-of-the-art physics simulations that demonstrate intuitive physics.
- Use graph neural networks and other machine vision models to perform pixel-wise predictions on generated simulations.

MIT Kavli Institute on NASA NICER

May 2021 – January 2022

Collaborated with MIT astrophysicists to study the stellar-mass black hole Cygnus-X1 using the NASA X-ray telescope NICER.

- Conducted time-series analysis and used optimization algorithms to fit models to energy spectra, determining the black hole's composition

ACTIVITIES AND LEADERSHIP EXPERIENCE

MIT Varsity Cross Country and Track and Field

August 2019–Present

NCAA Division III athlete, balancing full course load with a minimum of 25 hours a week of training. 2022 NCAA Cross Country National Champion and member of the Academic All-Conference Team

Plainsboro Rescue Squad

September 2015–July 2023

NJ state-certified EMT before and during COVID-19. 2500+ volunteer hours, driver and care provider

SKILLS

Language

English, Spanish, Hindi, Gujarati

Software:

Python, Julia, ROS, Assembly, Java, Javascript, MATLAB, Mathematica

Interests/Hobbies:

Running, Painting, Drawing, Photography, Hiking, Reading