### **EDUCATION**

# Carnegie Mellon University

Dec 2025

Masters of Science in Machine Learning

Courses(PhD): Deep Reinforcement Learning, Multimodal Machine Learning, Probabilistic Graphical Models, Intermediate Statistics

# Birla Institute of Technology And Science (BITS), Pilani

Jul 2022

Bachelors of Engineering, Computer Science and Masters of Science, Economics

## WORK EXPERIENCE

# Nutanix AI | Machine Learning Intern

San Jose, CA | May 2025 - Aug 2025

- Built a generalist unit test generation agent using an adversarially guided actor-critic system with evolutionary search deployed in a Model Context Protocol (MCP) client-server framework. [ICLR'25 Subm.]
- Achieved +15.6% higher coverage vs. baseline LLMs; also prototyped a deep research agent with bandit-based RAG for dynamic query routing across knowledge sources.

Google DeepMind | Pre Doctoral Researcher: Full-time 2 years

Bangalore, India | Aug 2022 – Jun 2024

- Developed time-series reinforcement learning methods for adaptive intervention in the world's largest maternal health program (3.2M active users) that sends automated health calls to underserved pregnant women.
- Proposed non-Markovian Time-Series Restless Bandits to improve multi-intervention sequencing, boosting content exposure by 57% and reducing dropout by 33%. [AAAI'24, AI Magazine'25]

Harvard University | Research Assistant: Full-time 1 year

Boston, MA | Aug 2021 - Jul 2022

- Investigated interplay between catastrophic forgetting (CF) and OOD generalization using 3D modeling and examined adaptability of continual learning algorithms to continuous domains. [Thesis]
- Demonstrated performance saturation of models with increasing tasks, highlighting limits of adaptability.

Microsoft | Software Development Intern

Hyderabad, India | May 2021 – Jul 2021

• Built an end-to-end service providing ML-based user insights to reporting services of the Playwright tool.

# SELECTED PUBLICATIONS AND THESIS

- \* All works cited are first-author. Full author lists are available on Google Scholar.
- Improving Health Information Access in the World's Largest Maternal Mobile Health Program via Bandit Algorithms.

  Oral Presentation @ AAAI 2024, AI Magazine 2025.

  [AAAI'24, AI Magazine'25]
- Analyzing and Predicting Low-Listenership Trends in a Large-Scale Mobile Health Program: A Preliminary Investigation.
   Oral Presentation @ Data Science for Social Good Workshop, KDD 2023.
- Continual Learning and OOD Generalization in Continuous Domain Adaptation.

[Thesis]

• Inference-Time Adversarial Actor-Critic with Evolutionary Search for Generalist Unit Test Agents. Under Submission @ ICLR 2025.

[ICLR'25 Subm.]

#### SELECTED PROJECTS

- Incentive Mechanisms for LLM-Assisted Textual Data Integrity: Designing mechanisms to counter LLM-assisted responses in feedback platforms, such as peer reviews. (Present)
- Multimodal Reasoning in Text and Videos: Developed a planner—perceiver system for interpretable step-by-step video and text reasoning. (Jan May 2025)

#### KEY ACCOMPLISHMENTS AND EXPERIENCES

- Cleared Regional Mathematics Olympiad (RMO); Qualified for Indian National Mathematics Olympiad. [2015]
- Teaching Assistant: CMU Deep RL, LLM Methods; BITS Pilani OOP, Database Systems, Econometrics

## **SKILLS**

Programming Languages

Python, C++, Java, R, Stata

Frameworks/Libraries

PyTorch, TensorFlow, Hugging Face, scikit-learn, NumPy, Pandas, React

AI/ML Areas Reinforcement Learning, Multimodal ML, LLMs, Generative AI, Diffusion Models