Palash Chatterjee

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pecey.github.io

Education

Indiana University — Bloomington, IN
Ph.D. in Computer Science — *May 2026*

Indiana University — Bloomington, IN
M.S. in Data Science — *May 2021*

West Bengal University of Technology — Kolkata, India
B.Tech. in Computer Science and Engineering — *June 2016*

Publications

(C1) **Palash Chatterjee**, Ashutosh Chapagain, Weizhe Chen, Roni Khardon. DiSProD: Differentiable Symbolic Propagation of Distributions for Planning. *International Joint Conference on Artificial Intelligence (IJCAI) 2023.*

(W1) **Palash Chatterjee**, Roni Khardon. Planning with temporally-extended actions. *Workshop on Bridging the Gap Between AI Planning and Reinforcement Learning, AAAI Conference on Artificial Intelligence 2025.*

Experience

Indiana University — Bloomington, IN
Research Assistant — *Aug 2020 - Present*

Currently working with Dr. Roni Khardon on improving planning and learning capabilities in model-based reinforcement learning.

Developed a differentiable symbolic planner that captures the distribution over future trajectories resulting in better plans in environments with high uncertainty or sparse rewards.

Indiana University — Bloomington, IN
Data Analyst — *Nov 2019 - Aug 2020*

Collected and analyzed data about K-12 schools to study the relationship between the demographics of students and their performance in computer science courses, and visualized the relationships on a Dash dashboard.

ThoughtWorks Technologies — Gurgaon, India
Application Developer — *July 2016 - July 2019*

Migrated existing MR pipelines and built custom Spark pipelines for data ingestion, cleanup and transformations to predict after-sales service.

Built Jenkins pipelines to enable continuous integration and deployment of code in various environments.

Led a team of 5 to develop a proof-of-concept for predicting equipment based on after-sales invoice with an accuracy of over 70% using decision trees.

Projects

SympyToTorch
Developed an utility to generate a PyTorch computation graph for a SymPy functions.

Episodic Memory DQN
Implemented an episodic memory DQN in PyTorch that augments Q-Learning with episodic memory to improve learning.

Using IMPALA as rollout policy for Monte Carlo Tree Search
Implemented single learner IMPALA architecture and used the same as rollout policy with Monte Carlo Tree Search.

Outlier detection using C2C-Siamese Networks
Detect outliers, by comparing the difference in feature representations of classes, using a Siamese Network, with an accuracy of 70% on MNIST.

Service

PC Member
AAAI 2024, 2025

Teaching Experience

Indiana University Bloomington, IN
B659: Topics in AI: Reinforcement Learning *Spring 2022, 2024, 2025*

Honors and Awards

Winner of International Planning Competition - Probabilistic Track *2023*
International Conference on Automated Planning and Scheduling

Luddy Outstanding Research Award *2021*
Luddy School of Informatics, Computing and Engineering, Indiana University

Technical Skills

Languages: Python, Java, SQL, Latex
Tools and Frameworks: Git, NumPy, Scikit-learn, Pandas, PyTorch, JAX, AWS, MapReduce, Spark, Hive, Jenkins, Redis, Parquet, HTML, CSS