

ADARSH SRIVASTAVA

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SUMMARY

Research-driven Master's in AI, and 3 years of software engineering experience at Paypal. Passionate about robotics, generative models, and reinforcement learning, with a strong foundation in AI research and engineering.

EDUCATION

National University of Singapore

Singapore

Master of Computing, Artificial Intelligence (with research)

Aug 2022 – Jun 2024

- Thesis exploring the feasibility of bridge diffusion models in robotic task planning, titled **Planning Using Schrödinger Bridge Diffusion Models**.
- Relevant coursework: *Neural Networks, Intelligent Robots, Uncertainty Modelling, Trustworthy ML, AI Planning, and Big Data Systems*.

Birla Institute of Technology & Science, Pilani

India

Bachelor of Engineering (Honours), Computer Science

Jul 2014 – Jul 2018

RESEARCH EXPERIENCE

Collaborative, Learning, & Adaptive Robots Lab, NUS

Singapore

Master's Dissertation

March 2023 – May 2024

- Surveyed the applications of diffusion models in robotic planning.
- Researched a novel way to perform offline robotic task planning, using bridge diffusion models. Implemented, trained, and evaluated the model on standard benchmarks (Maze2D from D4RL) and compared the performance with prior methods. Demonstrated feasibility and identified key areas for further optimization toward state-of-the-art performance.
- Full text: arxiv.org/abs/2406.12458. Code: github.com/adrshsrvstv/bridge_diffusion_planning

WORK EXPERIENCE

PayPal Inc.

Bengaluru, India

Software Engineer 2, Growth Markets

Jul 2018 – Aug 2021

- Led BIN data processing and 3DS integration for RuPay cards, impacting nearly 300M users. Worked on Spring batches and backend REST services, collaborating with teams in India, the US, and Singapore.
- Led the project to enable 3DS 2.0 for PayPal Japan, ensuring compliance and reducing checkout friction for unbranded merchants. Executed changes across domains, oversaw the E2E integration testing, and worked with PayPal's, as well as the bank's product, testing, and engineering teams, across India & Japan.

SKILLS

- Computer Vision, Diffusion models, Robotics, Reinforcement Learning
- python, pyTorch, pySpark, ROS 2, C++, Java, Spring Boot, Spring Batch

PROJECTS

Autonomous Vehicle Navigation in Duckietown

CS5478 Intelligent Robots | NUS

python, pyTorch, OpenAI gym, Duckietown Simulator

Mar 2023

- Developed a robust autonomous navigation pipeline to drive simulator roads with coarse location and a map, and to recognize and approach a goal building purely based on camera input as closely as possible.
- Used A* for path planning, PID for turn & velocity control, reinforcement learning to train the vehicle to navigate the lanes and turns, and object detection to identify the goal building.