

# Rohan Ashish Potdar

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## EDUCATION

Purdue University, West Lafayette, IN

August 2020 – December 2023

BS Computer Engineering; Minors in Physics and Mathematics; GPA: 3.89

## EXPERIENCE

### **Anyscale (Software Engineering Intern):**

May 2022 – August 2022

- Worked on [RLlib](#), a library for large-scale distributed reinforcement learning, built on top of [Ray](#)
- Implemented [Doubly Robust](#) Off-Policy Evaluation, an algorithm for evaluating policies on offline data
- Supported customers using offline RL for contextual bandits and recommender systems
- Engaged in RLLib API refactoring and made pull requests to enhance usability
- Prototyped end-to-end RL on a GPU using JAX and RLLib, with 10x speedup over CPU-based environments

### **Project Boom (Avionics Team Member):**

July 2020 – July 2021

- International student project building a supersonic autonomous aircraft: <https://theprojectboom.org/>
- Developed internal simulation and control software using JSBSim and ArduPilot (C++, Docker, Python)
- Cut costs and improved reliability by researching IMUs, GPS, and other supersonic flight-rated hardware

### **Teaching Assistant (ECE 36800 - Data Structures):**

August 2021 – December 2021

- Holding office hours and recitations to help students with data structures, algorithms and C programming

## RESEARCH AND PROJECTS

### **Neural-MMO @ Purdue:**

August 2021 – December 2021

- Led research group working on multi-agent reinforcement learning for the [Neural-MMO Challenge](#)
- Implemented RL policies with Attention and Long-Short Term Memory and ran distributed hyperparameter tuning on a multi-GPU instance using Ray, RLLib, and Tune
- Supervised team of six students by assigning tasks and discussing papers in deep reinforcement learning

### **Reinforcement Learning (RL):**

May 2021 – Current

- Selecting papers and organizing presentations on RL at the [Purdue ML Reading Group](#)
- Contributed bug fixes and feature requests for RL libraries such as [OpenAI Gym](#), [PettingZoo](#) and [RLlib](#)
- Maintainer of 12 OpenAI Gym environments through [gym-algorithmic](#) and [gym-legacy-toytext](#)
- Extended [Counterfactual Multi-Agent Policy Gradient](#) to off-policy learning and continuous action spaces through the Purdue Summer Undergraduate Research Fellowship (SURF 2021)

### **Online Simulation of Multi-Agent Drone Systems (SWARM):**

January 2021 – May 2021

- Created a multi-drone simulator as a part of Purdue's SWARM research team (Python, JSON, UNIX)
- Developed a simulated communications system using multithreading, multiprocessing, and BSD sockets

## SKILLS

- Languages: Python, C, C++, Java
- Libraries: RLLib, Ray, PyTorch, TensorFlow, JAX, stable-baselines3, scikit-learn
- Tools: Git, BuildKite (CI/CD), Docker, AWS, GCP, LaTeX

## RELEVANT COURSEWORK

CURRENT: \* GRADUATE: +

Reinforcement Learning Theory<sup>+</sup>(A), Artificial Intelligence<sup>+</sup>(A), Robotics<sup>+</sup>(A),  
Computational Complexity (A), Real Analysis\*, Abstract Algebra\*, Compilers\*