

Joe Kurian Eappen

West Lafayette, IN, 47906

jeappen.com

+1 (309) 750 6497 | eappen.joe@gmail.com

LinkedIn: [jeappen](#)

EDUCATION

PROGRAM	INSTITUTION	GPA	COMPLETION
PhD, Computer Engineering	Purdue University	3.79/4.0	12/2025 (<i>Expected</i>)
B.Tech(Hons.) & M.Tech, Electrical Engineering Minor Stream: Systems Engineering	Indian Institute of Technology Madras	8.69/10	2018

PROJECTS

Safety in Multi-agent Systems & Reinforcement Learning | Graduate Assistant Jan. 2019 - Present

Guide: Prof. Suresh Jagannathan (CS), Purdue University

Selected Publications:

- Scaling Safe Multi-Agent Control for Signal Temporal Logic Specifications, EJ et al (CoRL 2024)
- Co-learning Planning and Control Policies Constrained by Differentiable Logic Specifications, XZ, LD, EJ et al (ICRA 2024)
- DistSPECTRL: Distributing Specifications in Multi-agent RL Systems, EJ & JS (ECML-PKDD'22)
- FLoRA: A Framework for Learning Scoring Rules in Autonomous Driving Planning Systems, XZ, EJ & JS (Under Submission)

Adaptive Policy Selection using Hierarchical Attention | Masters Thesis

July 2017 - May 2018

Guide: Prof. Ravindran B. (CSE), IIT-M

WORK EXPERIENCE

JPMorgan Chase & Co., New York City, USA | AI Research Associate Intern June 2023 - August 2023

- Developed algorithms for Offline Reinforcement Learning using novel discrepancy techniques (publication at ICML 2024).
- Worked with S. Bhatt and A. Koppel. Contributed to journal paper - Online MCMC Thinning with Kernelized Stein Discrepancy (accepted to SIAM SIMODS).

Synopsys, Remote, USA | Technical Intern

May 2022 - September 2022

- Developed a machine learning framework to order circuits by a property from layout files without expensive simulations.
- Devised a graph neural network-based framework with 20% gains over a CNN-based method (~ 75% ordering accuracy).

IBM Research, Bangalore, India | Project Trainee

May 2017 - July 2017

- Adapted a deep learning model for summarization, built in Tensorflow to extract the relation between two text chunks.

RELEVANT COURSEWORK & SKILLS

CS \Electrical	Machine Learning, Deep Learning*, Computation Complexity & Languages*, Causal Inference*, Robotics*
Math	Data Structures & Algorithms, Distributed Systems*, Computer Network Systems*, Operating Systems*
Skills	Probability, Statistics & Stochastic Processes; Applied Linear Algebra
	Python, C++, MATLAB, Tensorflow, PyTorch, JAX, \LaTeX

TEACHING & SERVICE

Graduate Teaching Assistant

July 2017 - May 2023

- Purdue University** - ECE368: Data Structures (2018, 2022), ECE30864: Software Engg. Tools (**Instructor/Lead TA**, 2023-25)
- IIT Madras** - CS6700: Reinforcement Learning (2018)

Reviewer: AAI (2025), ICML (2022-24), NeurIPS (2022-24), ICLR (2024-25), IROS (2023), ICRA (2023-24)

* - Courses taken at Purdue