Aashish Gottipati

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Summary

Computer Science Ph.D. candidate at UT Austin specializing in reinforcement learning and sequential decision-making for autonomous and networked systems. Proven record of designing and deploying intelligent systems that adapt in real-world environments at scale (Microsoft Teams deployments). Skilled in reinforcement learning, meta-learning, and imitation learning with deep expertise in bridging research and applied impact. Seeking an Applied Scientist role where I can apply reinforcement learning and control expertise to build scalable, real-world AI systems.

Education

Doctor of Philosophy, Computer Science | University of Texas at Austin | Exp. Aug 2026 | GPA: 3.66
Master of Science, Computer Science | University of Utah | May 2022 | GPA: 3.95
Bachelor of Science, Computer Science | University of Utah | May 2021 | GPA: 3.96 (Magna Cum Laude)

Technical Skills

Languages: Python, C++, Java, C#, Swift, JavaScript
Machine Learning: PyTorch, TensorFlow, scikit-learn, Pandas, NumPy
ML Concepts: Reinforcement Learning (IQL, PPO), Meta-Learning, Imitation Learning
Developer Tools: AWS, Docker, Git, SQL, ONNX Runtime, Kubernetes, Jira

Experience

Research Intern | Microsoft | Redmond, WA | *June 2024 – Aug 2024*

- Led **Project Ivy**, a bandwidth estimation metapolicy via offline meta-learning trained on 1,000+ logs.
- Improved Microsoft Teams user QoE by **11.4% over heuristics** and **21% over online RL**, with reduced data requirements.

Research Intern | Microsoft | Redmond, WA | *June 2023 – Aug 2023*

- Developed **Project Merlin**, replacing a heuristic (UKF) with a neural model using imitation learning and online finetuning.
- Delivered **7.8% QoE gains** while requiring **80% fewer samples** than online RL.

Research Intern | Microsoft | Redmond, WA | *Aug 2022 – Oct 2022*

- Enhanced R3Net RL agent with PPO for interoperability in **multi-agent environments.**
- Deployed via ONNX to Microsoft Teams for **large-scale A/B testing** in production.

AI Software Engineer Intern | PassiveLogic | Holladay, UT | *Jan 2022 – June 2022*

- Built dashboard that **reduced engineering debug time** and automated evaluation pipeline for weather inference models.
- Enabled rigorous **A/B testing** and accelerated model iteration cycles.

Publications

- He, Z., **Gottipati, A.**, Qiu, L., et al. (2025). *Congestion Control System Optimization with Large Language Models*. arXiv.
- **Gottipati, A.**, & Qiu, L. (2025). *Dynamic Pacing for Real-time Satellite Traffic*. arXiv.
- **Gottipati, A.**, Khairy, S., Mittag, G., et al. (2025). *Offline to Online Learning for Real-Time Bandwidth Estimation*. ICC 2025.
- **Gottipati, A.**, Khairy, S., Hosseinkashi, Y., et al. (2024). *Offline Meta-learning for Real-time Bandwidth Estimation*. arXiv.
- He, Z., **Gottipati, A.**, Qiu, L., et al. (2024). *Designing Network Algorithms via Large Language Models*. ACM HotNets.

Honors & Affiliations

- Member: UT Austin Wireless Networking & Communications Research Group and University of Utah FLUX Research Group

* Explore my full project portfolio and publications at agottipati9.github.io.