

Mohammad Sami Nur Islam

GitHub • Google Scholar • LinkedIn • Website • mohammad.sami.islam@mail.mcgill.ca • +1(438)5306811

Education

McGill University, Computer Science and Mathematics	Sep 2021 – present Montreal, Canada
• MSc (Thesis) Computer Science under the supervision of Professor Doina Precup [Jan 2025 - April 2027 (expected)]	
• BA Computer Science and Mathematics (GPA: 3.83) [Sep 2021 - Dec 2024]	

Publications

Code as Reward: Empowering Reinforcement Learning with VLMs ↗	
David Venuto, Mohammad Sami Nur Islam , Martin Klissarov, Doina Precup, Sherry Yang, Ankit Anand [ICML 2024, Spotlight, 3.5% acceptance rate])	

Langevin Soft Actor-Critic: Efficient Exploration through Uncertainty-Driven Critic Learning ↗	
Haque Ishfaq, Guangyuan Wang, Mohammad Sami Nur Islam , Doina Precup [ICLR 2025]	

Scavenging Hyena: Distilling Transformers into Long Convolution Models ↗	
Tokiniaina Raharison Ralambomihanta, Shahrad Mohammadzadeh, Mohammad Sami Nur Islam , Wassim Jabbour, Laurence Liang [Efficient Systems for Foundation Models (ES-FoMO) workshop @ ICML 2024]	

Experiences

Researcher, MILA - Quebec Artificial Intelligence Institute	Sep 2023 – present Montreal, Canada
• Researching scaling and plasticity in Deep RL, and their intersection with continual reinforcement learning.	
• Investigating exploration strategies in RLVR.	
• Previously, designed sub-tasks for sparse reward environments using VLMs and applied Thompson Sampling to enhance exploration in deep continuous control.	

Machine Learning Research Intern, RBC Borealis	Sep 2025 – Dec 2025 Montreal
• Proposed a Conditional LoRA approach for LLM-based recommendation that dynamically modulates representations using Collaborative Filtering and semantic embeddings.	
• Evaluated the architecture on Beauty, LastFM, and ML1M datasets, demonstrating competitive performance in standard recommendation benchmarks.	

Awards

Master's Research Scholarship, Fonds de recherche du Québec – Nature et technologies (FRQNT) [\$ 33,334]	May 2025
--	----------

Hugh Brock Undergraduate Scholarship, McGill [\$ 20,000]	Sep 2021
---	----------

Projects

ProjectX Undergraduate Research Competition (by U of T AI), First-prize (\$10000)	Sep 2023 – Jan 2024
• Core member of the McGill team investigating cross-architecture knowledge transfer feasibility from slower attention-based LLM architectures to the faster, long convolution-based ones like Hyena. • The research aims to eliminate the need to train these more efficient models from scratch , saving resources. • Coded the distillation pipeline in PyTorch , designed experiments, and distributed tasks.	

Skills

Deep Learning / Machine Learning Libraries — PyTorch, Jax, Scikit-learn, NumPy, Pandas |

Programming Languages — Python, SQL, C, Java | **Cloud/MLOps** — SLURM, AWS, Docker, GitHub Actions

Extracurriculars

Bootcamp Technical Project Manager ↗, <i>McGill AI Society</i>	Apr 2023 – Jun 2024 Montreal, Canada
Helped redesign the curriculum and the assignments for the boot camp. Mentoring boot campers on their capstone projects.	