

Mohammad Sami Nur Islam

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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 [↗](#), *McGill AI Society* Apr 2023 – Jun 2024 | Montreal, Canada

Helped redesign the curriculum and the assignments for the boot camp. Mentoring boot campers on their capstone projects.