

PATRICK NADEEM WARD

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EDUCATION

M.Sc. McGill University
Computer Science

Sep. 2018 - (Expected) May 2020

- Cumulative GPA 4.0/4.0 — Advisor: Prof. Precup
- *Graduate Research Award (2018)* to pursue a Master's in Computer Science at McGill.

B.A. McGill University
Double major Mathematics and Software Engineering

Sep. 2015 - May 2018

- Cumulative GPA 3.6/4.0
- *Distinction Award* for being in the top 25% of the graduating class.

PUBLICATION

P.N. Ward, A. Smofsky, A. J. Bose (2019) *“Improving Exploration in Soft-Actor-Critic with Normalizing Flows Policies”* Invertible Neural Networks and Normalizing Flows **Workshop ICML 2019**.

EXPERIENCE

Research Assistant Mila and McGill University

Jun. 2018 - Present

- Implemented a recent advancement in Variational Inference called **Normalizing Flows** to model more expressive policy distributions in the Reinforcement Learning setting which resulted in the above Workshop publication.
- Co-Implemented a pipeline to train and tune models for Options in generic Multi-Agent settings using High Performance Computing (HPC).

Teaching Assistant McGill University

Sep. 2018 - Jun. 2019

Intro to Reinforcement Learning, Applied Machine Learning and Real Analysis

- Hosted tutorials, held office hours and graded problem sets.

Data Scientist Intern Société Générale

May 2017 - Sep. 2017

- Used Random Forests and ARIMA time-series models to predict potential server crashes.
- Designed a distance metric using word and sentence embeddings to flag legal documents that vary from acceptable standards and created a UI using Flask.
- Conducted a presentation to 20 engineers and managers in the branch, promoting the use of M.L./A.I. in the workplace and their possible applications to other areas in the Bank.

PROGRAMMING LANGUAGES AND TOOLS

- Python (3 years) — Java (2 years) — R — SQL — MATLAB — JavaScript — C — Hadoop — Git (1 year) — HPC — Bash

ADDITIONAL INFORMATION

- Fluent in English, French and Arabic.
- US citizen.