EDUCATION

MSc. Computer Science, McGill University and Mila

September 2017 - May 2019

Supervised by Dr. Doina Precup and Dr. Simon Gravel

BSc. Quantitative Biology, Minor Computer Science, McGill University

2017

TOOLS

Software: Python, Tensorflow, Pytorch, Git

Open Source Contributions: Tensorflow, embedKB, MLJS Matrix, AttentionRNN, Keras

EXPERIENCE

Student Researcher

June 2018 - Nov 2018

Google Brain, Montreal Canada

Deep Learning Research Associate

April 2017 - Nov 2017

Datalogue, Montreal Canada

- Researched, implemented and shipped production-level deep conditional random fields for entity recognition, convolution neural networks for classification and attention-based recurrent neural networks for machine translation.
- Improved accuracy of main product from 90% to 94% with a 13× reduction in parameters.

Computational Oncology Research Assistant

Jan 2015 - April 2017

Gravel Lab, McGill University

• Used theoretical cancer models to investigate genetic heterogeneity. Led to a publication.

Co-Founder, Scientific Lead

June 2015 - Dec 2015

QuantiScience, Montreal

- Engineered an algorithm to extract heart rate variability and infer mental stress from data obtained by the Fitbit Charge HR.
- Launched product to 3 beta testers and demoed in San Francisco as part of the top 10% of the AngelHack HACKcelerator.

(full list at Google Scholar)

PUBLICATIONS Ahmed Z., Le Roux N., Norouzi M., Schuurmans D. (2018) Understanding the impact of entropy on policy optimization, Preprint

> Bachman P., Islam R., Sordoni A., Ahmed Z. (2018) VFunc: a Deep Generative Model for Functions, ICML Workshop on Prediction and Generative Modeling in Reinforcement Learning Ahmed Z. and Gravel S (2018). Genetic Diversity in Circulating Tumor Cells, Molecular Biology and Evolution

> **Ahmed Z.** (2018). How to Visualize Your Recurrent Neural Network with Attention in Keras, Datalogue Technical Blog [67k views and 1.6k claps]

AWARDS

Canada Graduate Scholarship, CIHR 2017-2018 Industry Experience Award, NSERC 2017 Computational Biology Summer Award, CIHR 2015 & 2016Tomlinson Engagement Award for Mentoring 2016 & 2017

SELECTED TALKS

What Makes a Good Policy Optimization Algorithm? CIFAR DLRLSS	2018
Introduction to the Attention Mechanism, Montreal Deep Learning Meetup	2017
Predicting with Data, Osmos Academy	2016

VOLUNTEER **POSITIONS**

Founding Member and Co-Vice-President Events

2015 - 2017

McGill Integrative Bioscience Students Society

• Launched a club for interdisciplinary biologists, successfully partnering with Google and Microsoft. Organized 5 events with an average of 80+ people per event.

SELECTED **PROJECTS** (full portfolio at www.zafarali.me)

MinervaBot

April 2016 - December 2017

- Designed and launched a Facebook Messenger bot to help students find information about courses and buildings on McGill campus.
- Implemented machine learning classifiers, information retrieval mechanisms and clever REGEX-based algorithms resulting in > 80% bot success rate.