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

First Class Honours

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

• Investigating optimization problems in reinforcement learning. Led to a contributed research talk at the Deep Learning Summer School.

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 HACK celerator.

+WRITING (full list at Google Scholar)

PUBLICATIONS 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 & 2016 Tomlinson Engagement Award for Mentoring 2016 & 2017

SELECTED TALKS

What Makes a Good Policy Optimization Algorithm? CIFAR Deep Learning and Reinforcement Learning Summer School 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)

Towards electroencephalography-based prosthetics

Sept 2015 - Dec 2015

COMP 598: Applied Machine Learning [Grade: A]

• Compared transfer learning approaches versus personalized learning of neural networks, logistic regression and support vector machines as software for 3D printed arms.