

Education

McGill University

M.Sc. Mathematics and Statistics

Montreal, QC

May 2019 - April 2021

- Supervisor: David A. Stephens
- Thesis: Large Scale Optimization and Sampling for Machine Learning and Statistics.
- Relevant Coursework: Mathematical Foundations of Machine Learning, Reinforcement Learning, Probabilistic Graphical Models, Applied Machine Learning.

McGill University

B.Sc. Joint Honours Mathematics and Computer Science

Montreal, QC

September 2016 - April 2019

- GPA: 3.86/4.0
- Graduated with First Class Honours.

Conference Publications

Adaptive Importance Sampling for Finite-Sum Optimization and Sampling with Decreasing Step-Sizes.

Ayoub El Hanchi, David A. Stephens

Advances in Neural Information Processing Systems (NeurIPS), 2020.

Preprints

A Theory of Variance Reduction for Optimization and Sampling based on Importance Sampling.

Ayoub El Hanchi

Preprint, available on my website.

A Fast Algorithm for Dynamic Lower-Bounded Weighted Random Sampling.

Ayoub El Hanchi

Preprint, available on my website.

A Lyapunov Analysis of Loopless SARAH.

Ayoub El Hanchi

Preprint, available on my website.

Skills

Languages: English · French · Arabic

Programming Languages: Python · R · C++ · Bash

Software Tools: Pytorch · Jax · Numpy · Pybind11 · Git

Awards

Science Undergraduate Research Award

Faculty of Science, McGill University

May 2018