NADHIR HASSEN

Graduate Student

@ nadhir.hassen@umontreal.ca- nadhir.hassen@mila.quebec Montreal, QC

EXPERIENCE

Research Thesis - University of Montreal-Polytechnique

Topic : Approximate Inference for Bayesian Neural Network

Expected August 2021 Montreal, QC

Research Student - IBM-Canada-Mila Quebec

Project : Bayesian Deep Learning Workflows Through Hyperparameter Optimization

March 2020- Current Montreal, QC

- Search new idea to optimise and automate ML algorithm for Orion Project.
- Efficiently tune machine learning using Hyperparameter optimisation for neural networks.
- Research paper review relevant to Bayesian optimisation.
- Algorithm developement using Pytorch/GPy/BackPACK.

Teacher Assistant

Stochastic Process -MTH8303

Fall 2021-Lecture note preparation Montreal, QC

- Application of Stochastic Processes for Science and Engineering (Graduate level).
- Include: Markov chain, Markov Decision Process, Signal Processing, Birth-Death process, Renewal Theory.

Teacher Assistant

Probability and Statistics for Engineering-MTH2302

Winter 2020, Fall 2021 Polytechnique Montreal, QC

- Probability and Stochastic process (undergraduate level)

Undergraduate Research Project - UQÀM

Semi-parametric optimization for yield curve estimation

April-June 2019 Montreal, QC

- Use of Optimization techniques using Constrained Least-square methods.
- Estimating the Yield Curve using the Nelson-Siegel Model.
- Use of different library packages including cvxopt in Python programming language.

Quantitative Analyst Intern

Fiera Capital

May 2018 – June 2019 Montreal, QC

- Analysis of financial time series, clustering methods and forecasting.
- Produce client segmentation analysis for churn prediction using supervised and unsupervised methods.
- Perform data cleaning and produce statistical report for Risk management department.

PUBLICATIONS

- Nadhir Hassen et al 2021, Kronecker-factored approximation (KFAC) of the Laplace-GGN for Continual Learning (under review)
- Xavier Bouthillier, Nadhir Hassen, Lin Dong, Christopher Beckham et.al, Orion: Asynchronous Distributed Hyperparameter Optimization (Journal of Machine Learning Research)

EDUCATION

M.Sc. in Applied Mathematics (Research)

Polytechnique Montreal

Fall 2019-August 2021 (Expected)

B.S. in Mathematics (Statistics major)

UQAM

June 2019

CLASS CURRICULUM SAMPLE

University of Montreal

- Pobabilistic Graphical Model (Fall 2021)
- Reinforcement Learning (Winter 2020)
- Optimization/Dynamic Programming (Fall 2019)
- Representation Learning-Deep Learning (Winter 2020)
- Continual Learning (Winter 2021)

Languages

English
French
German