

Matteo Esposito

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Skills

Programming/Software

- Python (pandas, geopandas, numpy, scikit-learn, matplotlib) | Java | R | Git | SQL | \LaTeX

Languages

- English | French | Italian

Work Experience

Intact Insurance | Intact Lab - AI in Operations

DATA SCIENCE INTERN

- Built an expert system to accelerate the online insurance quoting process.

Montreal, Quebec

May 2020 - Aug. 2020

Aviva Canada | Data Science & Analytics

ANALYTICS CO-OP

- Developed and maintained a package in python used for actuarial calculations.
- Integrated package with modelling pipeline and replaced legacy process. (5-6x improvement in average runtime)
- Exploratory data analysis: Tested 3rd party geolocation/telematic data for added value in current predictive models.

Montreal, Quebec

May 2019 - Apr. 2020

Intact Insurance | Contact Personal Lines

ACTUARIAL CO-OP

- Validated premium calculations and ensured that they were correctly implemented from previous systems in new policy viewing software.
- Maintained and modified policy reconciliation SAS/SQL programs.

Montreal, Quebec

Sept. 2018 - Dec. 2018

Aviva Canada | Pricing Analytics

ANALYTICS CO-OP

- Built predictive models to model frequency and severity of personal auto insurance claims for the Atlantic region of Canada.
- Reduced error of variable imputation in Ontario pricing databases by 20% using multiclass classifiers.
- Built a database of at risk clients in SAS & trained binary classifiers to predict risk of default with 85% accuracy for the optimization of the current risk/client selection process.

Montreal, Quebec

Jan. 2018 - Aug. 2018

Education

University of Montreal (MILA)

M.Sc. COMPUTER SCIENCE, MACHINE LEARNING SPECIALIZATION

- Professional Masters completed at the MILA (Montreal Institute of Learning Algorithms) lab at University of Montreal.

Montreal, Quebec

Sept. 2020 - Aug. 2022

Concordia University

B.Sc. ACTUARIAL MATHEMATICS CO-OP WITH MINOR IN COMPUTER SCIENCE

- Graduation with Distinction
- Member of the Co-op Institute, Golden Key International Honour Society (Top 15% of students in actuarial mathematics program) & Data Innovation Society.
- Actuarial exams passed during studies: P (Probability), FM (Financial Mathematics), MFE (Models for Financial Economics)

Montreal, Quebec

Sept. 2016 - May 2020

Projects

Maze Solver (Gridworld Reinforcement Learning Agent)

- Built a maze solving agent using common reinforcement learning approaches.
- Methods implemented: Q-Learning, SARSA (State-action-reward-state-action), n-step SARSA.

Winter 2019

Project Euler

- Computational mathematics-related question solved using Java and base Python.
- In top 3.5% of all users with 63 project Euler questions solved

Winter/Summer 2019

Desjardins Lab DataCup

- Data science competition with the goal of predicting risk of credit default.
- Placed 29th out of 150+ teams. (AUROC = 0.895, 1st place AUROC = 0.920)

Summer 2018