Matteo **Esposito**

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Skills

Programming/Software

- Python | Java | R | Git | SQL | LaTeX

Languages

- English | French | Italian

Work Experience

Intact Insurance | Intact Lab - AI in Operations
Montreal, Quebec

DATA SCIENCE INTERN *May 2020 - Aug. 2020*

- Built an expert system to accelerate the online insurance quoting process.
- *Packages Used:* PyMC3 (Automatic Bayesian Inference), Experta (CLIPS inspired expert system building)

Aviva Canada | Data Science & Analytics
Montreal, Quebec

ANALYTICS CO-OP *May 2019 - Apr. 2020*

- 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.

Intact Insurance | Contact Personal Lines
Montreal, Quebec

ACTUARIAL CO-OP *Sept. 2018 - Dec. 2018*

- 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.

Aviva Canada | Pricing Analytics
Montreal, Quebec

ANALYTICS CO-OP *Jan. 2018 - Aug. 2018*

- 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.

Education

University of Montreal (MILA)
Montreal, Quebec

M.SC. COMPUTER SCIENCE, MACHINE LEARNING SPECIALIZATION *Sept. 2020 - Aug. 2022*

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

Concordia University
Montreal, Quebec

B.SC. ACTUARIAL MATHEMATICS CO-OP WITH MINOR IN COMPUTER SCIENCE *Sept. 2016 - May 2020*

- 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)

Projects

Maze Solver (Gridworld Reinforcement Learning Agent)

- Built a maze solving agent using common reinforcement learning approaches. *Winter 2019*
- Methods implemented: Q-Learning, SARSA (State–action–reward–state–action), n-step SARSA.

Project Euler

- Computational mathematics-related question solved using Java and base Python. *Winter/Summer 2019*
- In top 3.5% of all users with 63 project Euler questions solved

Desjardins Lab DataCup

- Data science competition with the goal of predicting risk of credit default. *Summer 2018*
- Placed 29th out of 150+ teams. (AUROC = 0.895, 1st place AUROC = 0.920)