Philip E. Bui

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EDUCATION

Université de Montréal **Montréal, Canada**
M.Sc. in Applied Mathematics, GPA: 4.14/4.30 *Intended Graduation 2025*

- **Research interests**: Machine Learning Theory, Applications in Finance and Business
- **Supervisor**: Dr. M. Augustyniak
- **Machine Learning (Mila)**: Fundamentals of Machine Learning, Deep Learning
- **Applied Mathematics (UdeM)**: Bayesian Statistics, Mathematical Finance (Arbitrage Theory)

Université du Québec à Montréal **Montréal, Canada**
B.Sc. in Actuarial Mathematics *Sept 2019 – May 2022*

- **Courses**: Probability, Statistics, Linear Algebra, Data Science, Real Analysis, Discrete Mathematics

TECHNICAL SKILLS

Tools/Technologies: Python, R, SQL, LaTeX
Machine Learning: Linear Models, Tree-Based Models, Neural Networks, Time-Series, NLP, Deep Learning
Libraries/Frameworks: Scikit-Learn, Pandas, NumPy, TensorFlow, PyTorch, XGBoost, LightGBM
Languages: Native in English & French

EXTRACURRICULAR PROJECTS

AI Generated Text Detection (Kaggle NLP Competition)

- Designed AI Generated Text Detector using NLP techniques (tokenization, vectorization) and feature engineering
- Utilized Python and relevant data science libraries (NumPy, Pandas, scikit-learn) for data analysis and modeling
- Tuned and ensembled classification models (Random Forest, Naive Bayes, SVM) to achieve top 10% performance

Polytechnique Montréal / CDPQ Datathon

- Implemented low-frequency portfolio optimization strategy based on mean reversion in 24 hours
- Selected as finalist and showcased solution to panel of experts

PROFESSIONAL EXPERIENCE

Université de Montréal **Montréal, Canada**
Teaching Assistant *Sep 2023 – May 2024*

- Held weekly recitations and 1-on-1 meetings to teach undergraduate concepts to approximately 100 students
- Fall 2023: Financial Mathematics (ACT1240)
- Winter 2024: Statistical Forecasting (STT3220)

Telus HEALTH **Montréal, Canada**
Senior Actuarial Analyst – Pension & Investment Consulting *Jan 2022 – Aug 2023*

- Designed Python mortality prediction model for small-size pension funds, deployed company-wide and used to adjust mortality assumptions for actuarial valuations, improving mortality accuracy by 15% over baseline tables
- Conducted company-wide trainings on data cleaning, analysis, and best practices to new and advanced employees
- Performed over 20 general stochastic modelling of assets and liabilities of clients' pension plans

AWARDS & ACHIEVEMENTS

IVADO Fin-ML CREATE Research Scholarship **$7,500**

- Research scholarship for exceptional students

Telus HEALTH Scholarship **$3,000**

- Academic excellence award for student in mathematics and statistics