HIEU QUOC NGUYEN

@ hq2nguye@uwaterloo.ca   ☎ +1-226-988-1315   🌐 https://hieufromwaterloo.github.io/   📍 Toronto, ON, CA

EXPERIENCE

Data Scientist
RBC Data Science & Analytics (DNA)

📅 Feb 2020 – Present   📍 Toronto, ON

- Collaborate with RBC's Canadian Banking Operations to deliver NLP solutions, which is designed to improve current business process and save est. $1M of expenses per year. Work on both sides of the model development and product deployment
- Reformulate an unsupervised text classification task into a supervised task by developing a reliable ground truth approximator, which results in an 19% increase in true positive while minimizing false negative by over 35% relative to the existing business logic
- Select appropriate statistical learning methodologies to test and establish baseline for business hypotheses; prepare, integrate and explore large data sets to identify unforeseen insights
- Build high-performance models leveraging embedding, machine learning, and NLP with deep learning framework (BERT)

Data Scientist Co-op
RBC Capital Markets - Ampify Program

📅 May 2019 – Sep 2019   📍 Toronto, ON

- Design and implement machine learning approach to identify potential capital funding opportunities by deploying time series analysis and NLP on both financial time series and text data from various APIs
- Multi-class classifier achieves an accuracy and f-1 score over 90% on the validation set; LSTM performance on the 30-day stock price moving average has an RMSE of less than 0.05 on the validation set
- Scientific research under supervision of Cathal Smyth (PhD) & Garrin McGoldrick (PhD) from Borealis AI:
  - Novelty/anomaly detection and forecasting in financial time series
  - Growth events detection based on textual financial data using NLP

Data Scientist Co-op
RBC Global Cyberecurity

📅 Jan 2018 – Aug 2018   📍 Toronto, ON

- Research in machine learning and social network analysis to detect complex cyber threats and financial fraud such as unauthorized access, data exfiltration, malicious financial transactions on SWIFT network, etc
- Scientific research under supervision of Ashkan Amiri (PhD), Sahar Rahmani (PhD):
  - Novelty/Anomaly Detection with Isolation Forest algorithm
  - Social Network Analysis, Spectral Graph Theory and Graph Convolution Networks (GCN)

EDUCATION

BMath, Statistics Major & Computer Science Minor
University of Waterloo

📅 Sep 2014 – Dec 2019

- President's Entrance Scholarship
- Ranked national top 30, #1 in Waterloo – TMX Options Trading Competition
- Courses taken in the last 2 semesters were master level courses
- Undergrad research assistance with Dr. Shoja Chenouri

SKILLS

- Teamwork, problem solving & communication
- Major languages: Vietnamese, Python, R, SQL, Java, Japanese
- Libraries & tools: TensorFlow, Scikit-learn, PostgreSQL, AWS

INTERESTS

- Statistical Learning & Computational Inference
- Deep Learning (NLP)

PATENT

System & methods for enterprise capitalization
US 20210049700

📅 Feb 2021

COURSEWARE

AWS Fundamentals
Coursera – Amazon Web Services

📅 Mar 2021

Advanced Machine Learning Specialization
Coursera – National Research University – Higher School of Economics

📅 Jul 2020

Software Design & Architecture Specialization
Coursera – University of Alberta

📅 Jan 2021

Data Science using R Specialization
Coursera – The Johns Hopkins University

📅 June 2020

Tensorflow in Practice Specialization
Coursera – Deeplearning.ai

📅 Jan 2020

Deep Learning Specialization
Coursera – Deeplearning.ai

📅 Dec 2019