MY DUC TRAN

EMPLOYMENT

Bank of Montreal (BMO)
Global Market Quant Analyst Intern
<div align="right">Toronto, ON
Jan. 2023</div>

- Team: Canadian Prime Finance - Analytics
- Tech: Python, VBA, C#, .NET, HTML

Emma Assurance Vie
Software Engineer Part-time
<div align="right">Montreal, QC
Sept. 2022 to Dec. 2022</div>

- Worked on our new front-end version of the client and broker platform.
- Tech: TypeScript, Angular.JS, Node.JS, NX, PostgreSQL

Okta Inc
Software Engineer Intern (Full Stack) - OIN DAX Team
<div align="right">Toronto, ON
May 2022 to Aug. 2022</div>

- Developed an end-to-end platform for app catalog editor additions in ISV Portal.
- Implemented a new UI component with Quick Search API.
- Improved the current workflow from one per week update to hourly update.
- Implemented Selenium Testing and performed frequent CI/CD testing.
- Tech: Java, DropWizard, Backbone.js, Javascript, REST API, My SQL, Agile, Jira, Git

DRW Holdings, LLC
Software Developer Intern
<div align="right">Montreal, QC
May 2021 to Aug. 2021</div>

- Built NLP model for automated Trading Simulator in New Flow Team (NSA).
- Tech: Tensorflow, Kedro, Docker and Ray

PROJECTS

Empirical Assets Pricing via Machine Learning
<div align="right">Sept. 2021 to Dec. 2021</div>

- Study the relationship between stock index factors and the corresponding premium stock return over time using regression and machine learning models.
- Proved that linear regression with Huber Loss outperformed Neural Network and achieved state-of-the-art test error at around 2%.
- Supervisor: Prof Yi Yang, McGill University

AI 4 Good Lab
<div align="right">Apr. 2021 to June 2021</div>

- Used Logistics Regression and SGD Classifier model to predict Autoimmune Disease flare-up in that day based on user data
- Worked on React app to gather user data about food, weather, exercise time, etc...

MNIST Digit Recognizer
<div align="right">Dec. 2020</div>

- Built a classic **CNN model** to recognize handwritten digit with an accuracy of **99.7%, top 100 in Kaggle Competition**.
- Created a web demo for the client to predict their handwritten digits or with uploaded images using **Tensorflow and Javascript**.
- demo: mytran2111.github.io/DigitRecognizer_web_demo/

MAIS 202 - Kaggle Competition 1st place
<div align="right">Nov. 2020</div>

- Worked on MNIST problem to find the maximum of multiple digits in 2D images.
- Built **CNN model** and work on **Grid Search CV** and **Data Augmentation** to achieve **accuracy of 97.9%**.
- Wrote final proposal to demonstrate the process and the model architecture.
- source code: MNIST_Max-digits

WEB WHITEBOARD - Code Jam Hackathon 3rd place
<div align="right">Nov. 2020</div>

- Created a virtual whiteboard to reduce the challenge for students to attend online schooling.
- Built website by **Javascript, HTML, CSS and p5.js** for 2D graphics.
- demo: mytran2111.github.io/Code-Jam-2020/

CONFERENCE

Deep Conservative RL for Personalization of Mechanical Ventilation Treatment ·
Published at IAAI-23, Poster presented in RLDM 2022 , Winner of University of Toronto Artificial Intelligence Conference 2022
<div align="right">June 2021 to
Feb. 2022</div>

- Paper: https://arxiv.org/abs/2210.02552
- Preprocessed MIMIC III dataset of over **50,000 patients** using MySQL and Pandas.
- Implemented LSTM Autoencoder to encode patients' historical data with lab values and demographics.
- Implemented DeepVent, the first Conservative RL model to customize ventilation treatment.
- Awarded winner of Project X organized by UofT with the **highest score among 25 papers** submitted.
- Tech: Pandas, Pytorch, MySQL, AWS, d3rlpy.

AWARDS

Bank of Montreal · BMO Capital Markets Excellence Scholarship
<div align="right">Jan. 2013</div>

Excellence scholarship for undergrads in recognition of achievements in school and community involvement,

UofT AI · Winner of Project X Machine Learning Competition - Clinical Practice Cohort
<div align="right">Feb. 2022</div>

"Six McGill Undegrads win UofT international artificial intelligence competition" - The McGill Tribune (March 2022)
"Undergrad team uses machine learning to create a better hospital ventilator " - McGill Reporter (March 2022)

McGill University · Edward W Beatty Scholarship
<div align="right">Sept. 2019</div>

Renewable scholarship for top 10% students in Mathematics, awarded for all semesters (2019-2023)

Tomlinson Engagement Award for Mentoring
<div align="right">Aug. 2020</div>

Mentor for Linear Algebra I.

UK Mathematics Trust · Gold Medal in United Kingdom Senior Mathematical Challenge
<div align="right">Dec. 2018</div>

Invited to first round for British Mathematics Olympiad

Leadership

VP Finance - Competitive Programming at McGill
<div align="right">Apr. 2021 to Aug. 2022</div>

- Managing financial expenses and budget as well as sponsor packages for our events.
- Organized Tech Games, the biggest tech challenge in McGill with more than 100 signups.
- Worked with sponsors from IMC, CAE, Deloitte,...

CONTACT

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- in my-duc-tran-1909/
- ⌂ mytran2111

EDUCATION

McGill University
B.Sc Statistics & Computer Science
CGPA : 3.97/4.0
<div align="right">2019 to 2023</div>

SKILLS

PROGRAMMING LANGUAGES
Python
Java
Ocaml
R
HTML
JavaScript
CSS
mySQL
C
Hibernate
OpenAPI

ML/AI
Pytorch
Tensorflow
Scikit-learn
Pandas
Numpy
Keras
Kedro
Docker

DEVELOPMENT
Git
Agile
Jira
Confluence