MY DUC TRAN

EMPLOYMENT

Amazon Web Services (AWS) — Vancouver, BC
Incoming Solution Architect Intern — May 2023
- Startup Team

Bank of Montreal (BMO) - Capital Markets — Toronto, ON
Global Markets Quant Analyst Intern — Jan. 2023
- Team: Canadian Prime Finance - Analytics
- Built a comprehensive dashboard to analyze counterparties' exposure (key risk data for our clients)
- Automated analyzing process for Prime Brokerage daily report and Greek values calculation by sending daily emails.
- Tech: Python, VBA, C#, .NET, HTML, Bloomberg API, mySQL

Emma Assurance Vie — Montreal, QC
Software Engineer Part-time — Sept. 2022 to Dec. 2022
- Worked on our new front-end version of the client and broker platform.
- Tech: TypeScript, Angular.JS, Node.JS, NX, PostgreSQL

Okta Inc — Toronto, ON
Software Engineer Intern (Full Stack) - OIN DAX Team — May 2022 to Aug. 2022
- 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 — Montreal, QC
Software Developer Intern — May 2021 to Aug. 2021
- 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 — Sept. 2021 to Dec. 2021
- 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 — Apr. 2021 to June 2021
- 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 — Dec. 2020
- 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 — Nov. 2020
- 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 — Nov. 2020
- 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 — June 2021 to Feb. 2022
- 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 — Jan. 2013
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 — Feb. 2022
"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 — Sept. 2019
Renewable scholarship for top 10% students in Mathematics, awarded for all semesters (2019-2023)

Tomlinson Engagement Award for Mentoring — Aug. 2020
Mentor for Linear Algebra I.

UK Mathematics Trust · Gold Medal in United Kingdom Senior Mathematical Challenge — Dec. 2018
Invited to first round for British Mathematics Olympiad

Leadership

VP Finance - Competitive Programming at McGill — Apr. 2021 to Aug. 2022
- 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

my.d.tran@mail.mcgill.ca
mytran2111.github.io/
4385306888
my-duc-tran-1909/
mytran2111

EDUCATION

McGill University — 2019 to 2023
B.Sc Statistics & Computer Science
CGPA : 3.97/4.0

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