MY DUC TRAN

EMPLOYMENT

Amazon Web Services (AWS)

Solution Architect Intern, Startup Team

Vancouver, BC May 2023 to Aug. 2023

- Developed a full stack decentralized application (web3) for Blockchain transaction on Ethereum network
- Designed a high-level architecture for three-tier application on AWS
- Tech: JavaScript, React, web3, AWS services (EC2, Lambda, API Gateway, S3, Step Function, Dynamo DB, SNS, Amazon Managed Blockchain nodes)

Bank of Montreal (BMO) - Capital Markets

- 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

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

re 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

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

Montreal OC May 2021 to Aug. 2021

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
- Proved that linear regression with Huber Loss outperformed Neural Network and achieved state-of-the-art test error at around 2%

MNIST Digit Recognizer

- 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/

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.

AWARDS

Bank of Montreal · BMO Capital Markets Excellence Scholarship

Jan. 2023

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

Uoff 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)

Sept. 2019

McGill University · Edward W Beatty Scholarship Renewable scholarship for top 10% students in Mathematics, awarded for all semesters (2019-2023) Tomlinson Engagement Award for Mentoring

Invited to first round for British Mathematics Olympiad

Aug. 2020

Mentor for Linear Algebra I.

UK Mathematics Trust · Gold Medal in United Kingdom Senior Mathematical Challenge

Apr. 2021 to Aug. 2022

Leadership

VP Finance - Competitive Programming at McGill

- 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,

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∠ my.d.tran@mail.mcgill.ca

CONTACT

in my-duc-tran-1909/

mytran2111

EDUCATION

McGill University B.Sc Statistics & Computer Science CGPA: 3.97/4.0

2019 to 2023

SKILLS

PROGRAMMING LANGUAGES

Ocaml

HTML JavaScript

CSS

OpenAPI

ML/AI

Pytorch Tensorflow

Pandas Numpy

Keras

DEVELOPMENT

Git

Agile Jira

Confluence

Docker Database

OpenAPI