

Duc Nguyen

Full-Stack / Data Engineer
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EDUCATION

Concordia University

Bachelor of Science, Computer Science CO-OP

Sept 2017 – Dec 2022

WORK EXPERIENCE

Wealthsimple, Data Engineering Intern

Data Science Platform / Financial Investment Firm

Incoming 2023

DRW Trading Group, Software Engineering Intern

Event-driven Trading Desk / Proprietary Trading Firm

May 2022 – Aug 2022

- Collaborated directly with stakeholders to provide key web insights for algorithmic low-latency trading activities
- Designed and built a distributed system to discover more than 1 million websites with Scrapy, Flask, and PostgreSQL
- Reduced API response time by 90% with Redis caching, concurrent task processing, and multithreading
- Saved analysts 10+ hours of work by optimizing PostgreSQL database propagation for trading events

Morgan Stanley, Software Engineering Intern

Technology and Operation Risk / Investment Banking Firm

Jan 2022 – Apr 2022

- Contributed features to a firm-wide data warehouse using Java and Spring Boot
- Spearheaded in modernizing a legacy code base to a new application with caching system and lazy loading grid
- Enhanced team productivity by delivering Angular and AG grid features to review real-time requests

DRW Trading Group, Software Engineering Intern

Event-driven Trading Desk / Proprietary Trading Firm

May 2021 – Aug 2021

- Engineered pipelines to notify algorithmic trading events and monitor sites of interest
- Designed a Computer Vision application to compare and evaluate thousands of web snapshots with Docker, Selenium, OpenCV, Scikit-image, and Tesseract OCR
- Built a REST API service to report web failures from 800+ URLs daily by using Python with FastAPI

Ericsson, Software Engineering Intern

Open-source [Eclipse Theia](#) / Telecommunications Company

Sept 2020 – Apr 2021

- Contributed to [Eclipse Theia \(17k+ stars on GitHub\)](#) - an Open-source Cloud and Desktop IDE framework
- Authored and developed [@theia/external-terminal](#) (1000+ weekly downloads) a Theia package that enables the interactions with native terminals, using TypeScript, Node.js, React.js, and Electron
- Reduced average test wait time by nearly 90% in theia-apps (a set of 15 Docker images) by writing shell scripts and migrating the CI-CD workflow to GitHub Actions

OTHER EXPERIENCE

HackConcordia, VP of Technology

May 2020 – Feb 2022

- Led tech team to build the technical infrastructure for ConUHacks VI - Montreal's Largest Hackathon
- Formed strategies to handle data from 1000+ participants before and during the live event
- Architected and launched a FastAPI pipeline that allows participants to check-in and interact with event sponsors

Concordia Cognitive Data Science Lab, Undergraduate Research Assistant

May 2021 – Aug 2021

- Integrated [SHAP](#) to explain the output of Machine Learning models
- Trained classifiers with Gradient Boosting Technique, implemented in Python with XGBoost
- Built an interface to demo the Knowledge Graph system using React and FastAPI

SKILLS

Programming: Python, Lua, JavaScript, TypeScript, HTML/CSS, \LaTeX

Frameworks & Databases: React, Express, Node.js, Flask, FastAPI, Django, MongoDB, PostgreSQL, MySQL, SQLAlchemy, Redis

Others: Git, Docker, Digital Ocean, AWS, Azure, Google Cloud Platform, Heroku, Visual Studio, PyCharm, IntelliJ, Vim