Duc Nguyen

Full Stack / Data Engineer
Concordia University, B. Computer Science (December 2022 Expected)

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WORK EXPERIENCE

DRW Trading, Software Developer Intern   *May 2022 - Aug 2022*
Event-driven Trading Desk

- 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 PostgresSQL.
- Reduced API response time by 90% with Redis caching, concurrent task processing, and multithreading.
- Saved analysts 10+ hours of work by optimizing PostgresSQL database propagation for trading events.

Morgan Stanley, Technology Analyst   *Jan 2022 - Apr 2022*
Technology and Operations Risk

- 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, Software Developer Intern   *May 2021 - Aug 2021*
Event-driven Trading Desk

- 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.

Ericcson, Software Developer Intern   *Sep 2020 - Apr 2021*
Open-source Eclipse Theia

- Contributed to Eclipse Theia (17k+ stars on GitHub) - an Open-source Cloud and Desktop IDE framework.
- Authored and developed @theia/external-terminal (2000+ 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.

VOLUNTEERS

HackConcordia, VP of Technology   *May 2021 - 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 University, 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.

PROJECTS

CleverICE - 1st Place of Intact Challenge in TOHacks 2021 (out of 41 submissions)   *May 2021*
Efficiently implemented back-end service, integrated GPT-3 Open-AI, and created customer database on CockroachDB for a web app that speeds up the insurance claim process for customers.

SKILLS

Programming: Python, TypeScript, JavaScript, Java, C++

Technologies: Git, Electron, React, Express, Node.js, Flask, FastAPI, Django, MongoDB, CockroachDB, PostgresSQL

Others: Digital Ocean, GitHub, Heroku, Google Cloud Platform, Microsoft Azure