Duc Nguyen

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Full Stack / Data Engineer
Concordia University, B. Computer Science, CO-OP (2023 Expected)

WORK EXPERIENCE

Morgan Stanley, Software Developer Intern *Jan 2022 - Apr 2022*
Securities Technology Division in an Investment Bank

DRW Trading, Software Developer Intern *May 2021 - Aug 2021*
Event-driven Trading Team in a High-frequency Trading Firm

- Developed pipelines to notify algorithmic trading events and monitor sites of interest.
- Introduced a Computer Vision solution to compare thousands of web snapshots and extract differences on-demand, using OpenCV, Scikit-image, and Tesseract OCR.
- Implemented a concurrent system and a Flask API service for queuing and processing jobs triggered by users.
- Built a REST API service to report HTTP failures from 800+ URLs daily by using Python with FastAPI.
- Created an efficient system to crawl, poll, handle, and manage large datasets daily for algorithmic trading, using Selenium and Docker.

Concordia University, Undergraduate Research Assistant *May 2021 - Aug 2021*
Concordia Data System Lab (CoDS) - under the supervision of Dr. Essam Mansour

- Integrated SHAP to a variety of Machine Learning models to explain how different inputs affect the results.
- Trained multiple classifiers with Gradient Boosting Technique, implemented in Python with XGBoost.
- Built an interface to demo the Knowledge Graph system using React.js and FastAPI.

Ericcson, Software Developer Intern *Sep 2020 - Apr 2021*
Eclipse Theia Team in a Telecommunications Company

- Contributed to Eclipse Theia (15k+ stars on GitHub) - an Open-source Cloud and Desktop IDE framework.
- Authored and developed @theia/external-terminal (2000+ weekly downloads) – a Theia package which 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 integrating the CI-CD workflow to GitHub Actions.
- Collaborated with the open-source community and internal engineers to develop, test, and deliver new features.

LEADERSHIP EXPERIENCE

GitHub Education, Campus Expert *Oct 2021 - Present*
GitHub Education Program

Got selected by GitHub out of tens of thousands of applicants to build a diverse and inclusive technical community.

HackConcordia, Vice President of Technology *May 2021 - Present*
Technology Team

Leading tech team to prepare the technical infrastructure for ConUHacks to serve over 700 participants.

Concordia University, CO-OP Mentor *May 2021 - Present*
Institute for Co-operative Education

Hosting workshops and meetings to coach students to succeed in careers.

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.js, Express.js, Node.js, Flask, FastAPI, Django, MongoDB, CockroachDB, Docker
Others: Digital Ocean, GitHub, Heroku, Google Cloud Platform, Microsoft Azure