Duke 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*
Scheduled News

Morgan Stanley, Technology Analyst   *Jan 2022 - Apr 2022*
Technology and Operations Risk
- Contributing features to Identity & Access Management data warehouse on a firm-wide level, using Java, Spring Boot.
- Delivered an Angular and AG Grid feature that enables Access Management team to review requests in real-time

DRW Trading, Software Developer Intern   *May 2021 - Aug 2021*
Event-driven Trading
- Developed pipelines to notify algorithmic trading events and monitor sites of interest.
- Delivered 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.
- Built a REST API service to report HTTP failures from 800+ URLs daily by using Python with FastAPI.
- Created a system to crawl, poll, and manage large datasets daily for algorithmic trading, using Selenium and Docker.

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

VOLUNTEERS

HackConcordia, VP of Technology   *May 2021 - Feb 2022*
- Led tech team to build the technical infrastructure for ConUHacks VI - Montreal's Largest Hackathon.
- Set up MongoDB database and wrote backup shell scripts to handle data from over 1000 applications.
- Architected and developed a FastAPI pipeline that allows participants to check-in and interact with event sponsors.
- Deployed and configured Ubuntu Server with Nginx and Docker-compose.

Concordia University, Undergraduate Research Assistant   *May 2021 - Aug 2021*
- Integrated SHAP to explain 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

Inventory Tracking - Back-end API Service   *Jan 2022*
Built an async API service that enables developers to easily query and manage items in store's inventory.

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, Docker

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