Duc Nguyen

ducnguyen.dev
triduc.nguyen@mail.concordia.ca

+1-(514)-754-2030
github.com/DukeNgn
linkedin.com/in/ductringn

EDUCATION

Concordia University   Montreal, QC
Bachelor of Computer Science, Software Systems CO-OP   *Sept. 2017 – Present*

WORK EXPERIENCE

DRW Trading Group – Software Developer Intern   Montreal, QC
Event-driven Trading Team in a High-frequency Trading Firm   *May. 2021 – Aug. 2021*

- Developed a Computer Vision solution to compare web snapshots and extract meaningful differences, using OpenCV, Scikit-image, and Tesseract OCR.
- Created an efficient mechanism to crawl, poll, and take screenshots of 800+ URLs daily, then store in a remote Ubuntu VM, using Python with Selenium and Docker.
- Built a REST API service to report HTTP failures and abnormal responses from URLs, using Python with FastAPI.
- Implemented a concurrent system and a Flask API service for queueing and processing jobs triggered by users.

Ericsson – Open-source Software Developer Intern   Montreal, QC
Eclipse Theia Team (theia-ide.org)   *Sept. 2020 – April. 2021*

- Contributed to Eclipse Theia (15k stars on GitHub) - an Open-source Cloud & Desktop IDE framework.
- Authored and developed @theia/external-terminal (2000+ weekly downloads) – a Theia package that contributes the ability to interact with native terminals, using TypeScript, Node.js, React.js, and Electron.
- Reduced average test wait time by nearly 90% in theia-ide/theia-apps (a set of 15 Docker images) by writing shell scripts and integrating the CI-CD workflow to GitHub Actions.
- Authored and maintained Selene IDE – a cross-platform IDE based on Theia for illustration purposes.

VOLUNTEER

HackConcordia – Vice President of Technology / Software Developer   Montreal, QC
Technology Team   *May. 2021 – Present*

- Plan and prepare the technical infrastructure for ConUHacks 2022 - Montreal's biggest annual hackathon.
- Deployed hackconcordia.io website (node.js and express.js web app) using Docker and Nginx on Digital Ocean.

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

- Integrated SHAP to a variety of Machine Learning models to explain how different inputs affect the end results.
- Utilized Python with XGBoost to train different classifiers using gradient boosting technique.
- Built an interface to demo the Knowledge Graph system using React.js and FastAPI.

Concordia Institute for Co-operative Education: CO-OP Mentor

PROJECTS

Personal Website: ducnguyen.dev (for additional information and projects)
CleverICE - 1st Place of Intact Challenge in TOHacks 2021 (out of 41 submissions) (DukeNgn/CleverICE)
Efficiently built back-end service, integrated GPT-3 Open-AI, and created customer database on CockroachDB for CleverICE - a web app that speeds up the insurance claim process for customers.
Utilized: Python, Flask, Open-AI, Cockroach SQL, CockroachDB

COVID-19 Detector - HackThe6ix 2020 (DukeNgn/covid19-detector)
Led a team to build a web app that determines the probability of a person contracting with COVID-19 based on Chest CT Scan images. A Machine Learning model was trained on Azure platform with Python and Flask to perform the tasks.
Utilized: Python, Flask, HTML/CSS, JavaScript, Bootstrap, Azure Custom Vision, Azure Deployment

SKILLS

Programming: Python, TypeScript, JavaScript, Java, C++
Tools and Frameworks: Git, Docker, Electron, React.js, Node.js, Flask, FastAPI, MySQL
Platforms: GitHub, GitLab, TravisCI, GitHub Actions, Microsoft Azure, Google Cloud, Heroku, CockroachDB
Others: Vim/NeoVim, Emacs, LaTeX, Markdown