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github.com/DukeNgn devpost.com/DukeNgn

**EDUCATION** 

Montreal, OC **Concordia University** Sept. 2017 - Present

Bachelor of Computer Science, CO-OP

WORK EXPERIENCE

Software Developer, Intern Morgan Stanley Jan. 2022 - Apr. 2022

Institutional Securities Technology Division in an Investment Bank

Montreal, QC

Software Developer, Intern

May 2021 - Aug. 2021

Event-driven Trading Team in a High-frequency Trading Firm

Montreal, QC

- Worked in a team of 10 to develop 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 queueing and processing jobs triggered by users.
- Built a REST API service to report HTTP failures from 800+ URLs daily, using Python with FastAPI.
- Created an efficient mechanism to crawl, poll, handle and manage large datasets daily for algorithmic trading, using Python with Selenium and Docker.

Utilized: Python, Pytest, FastAPI, Flask, Django, OpenCV, Scikit-image, Tesseract, Selenium, Docker, REST API

## **Undergraduate Research Assistant**

## Concordia University

May 2021 - Aug. 2021

Concordia Data System Lab (CoDS) - under the supervision of Dr. Essam Mansour

Montreal, QC

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

Utilized: Python, Jupyter Notebook, SHAP, FastAPI, JavaScript, Node.js, React.js

## Software Developer, Intern

## **Ericsson Corporation**

Sept. 2020 - Apr. 2021

Eclipse Theia Team (theia-ide.org) in a Telecommunications Company

Montreal, QC

- 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.
- o Collaborated with the open-source community and internal engineers to develop, test, and deliver new features. Utilized: TypeScript, JavaScript, Node.js, React.js, Electron, Docker, GitHub Actions, TravisCI

#### LEADERSHIP EXPERIENCE

#### **Campus Expert**

#### **GitHub Education**

Oct. 2021 - Present

GitHub Education Program

Montreal, OC

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

# Vice President of Technology

# **HackConcordia**

May 2021 - Present

Technology Team

Montreal, QC

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

# **CO-OP Mentor**

## **Concordia University**

May 2021 - Present

Institute for Co-operative Education

Montreal, OC

Host workshops and meetings to coach students to succeed in careers, resulting in a 100% internship-secured rate.

#### **PROJECTS**

# CleverICE - 1st Place of Intact Challenge in TOHacks 2021 (out of 41 submissions) (DukeNgn/CleverICE)

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