Hong Van Pham

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EDUCATION

McGill University   **2019-Present**
B.A., Mathematics and Computer Science.   Montreal, Canada
- 3.61/4.0 GPA, Graduating May 2023
- MHCPP Volunteer, McGill SSMU Musicians Collective, MSAC
- La Belle Tonki (cook, part-time)

WORK EXPERIENCE

Software Developer   **May 2022 – Present**
Distributed Digital Music Archives & Libraries Lab, McGill University   Montreal, Canada
- Responsible for developing **Rodan**, a Django-based workflow management software for **Optical Music Recognition** and Analysis using Machine Learning, used by musicologists at universities around the world.
- Used **Docker** to **containerize** project modules and dependencies. Maintained and deployed containers on staging and production servers, and reduced total build time by 40%.
- Fixed, reorganized, and improved infrastructural and functional issues from a large codebase. Migrated project codebase, **PostgreSQL** databases, and external dependencies from Python2.7 to **Python3**.7.
- Collaborated with different teams to ensure compatibility and stability of new feature releases.

Data Science Intern   **Jan - Apr 2021**
Vivas Technology   Hanoi, Vietnam
- Responsible for developing Business Intelligence tools with users' data and applications' performances.
- Implemented data gathering and cleaning process from Oracle DBMS to **ClickHouse** with **Apache Nifi**. Produced dashboards in **Apache Superset** for the board of directors to assist business decision-making.
- Improved team's workflow column-oriented relational database in ClickHouse by streamlining the process of creating new products.

PROJECTS

Covid-19 Twitter Sentiment Analysis   **Nov 2021**
Comp 598 - Class Project
Analyzed and produced a written report on public sentiments and topics of concerns on Covid-19 through Twitter, with a focus on vaccination hesitancy and mandates. Used **Python (pandas, matplotlib)**, and **Twitter's API**.

Spotify Song Popularity Predictions using MFCCs   **Dec 2021 - Jan 2022**
Worked with Machine Learning models to predict an unreleased track's Spotify's popularity with audio analysis using **Mel-frequency cepstral coefficients.** Used **Python (sklearn, pandas, PyTorch, librosa)** and **Spotify's API**.

SKILLS & INTERESTS

- **Technologies & Skills:** Python, Docker, R, Ocaml, Java, C, bash, Web APIs, SQL, Apache Superset, Apache Nifi, MatLab, Latex, PostgreSQL, Git, Machine Learning, Data Analysis
- **Interests:** Avid Musician, Singer Songwriter, Piano teacher, Fashion hobbyist, Vinyl Record collector.