

Flavia Y. Ouyang

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EXPERIENCE

Software Engineer

SociVolta Inc., Montréal, Canada

Build infrastructure, systems, and models at a proprietary energy trading firm

July 2022 – Present

- Designed and implemented robust data infrastructure to support seamless Extract, Transform, Load (ETL) operations, enhancing overall system performance
- Created a comprehensive data lineage tracking system, enabling easy traceability and auditability of data flows
- Utilized **Python** to extract real-time and historical energy data from various market sources and vendors
- Streamlined data normalization using **pandas**, **polars**, and **NumPy** to ensure consistent internal formatting
- Developed and maintained over 600 **Apache Airflow** DAGs, optimizing its backend for efficient data extraction, transformation, and loading
- Proactively monitored and resolved data quality issues, ensuring accuracy and reliability of information

Founding Engineer

Weltschmerz Studio, Montréal, Canada

Co-found an artist-collective studio

April 2019 – May 2022

- Designed and implemented client-side and server-side architecture using **Figma** and **UML modeling** tools to ensure efficient and scalable software solutions
- Developed feature-rich applications with a responsive design using **React** framework, resulting in enhanced user experience and increased customer satisfaction
- Managed and optimized **PostgreSQL** databases, ensuring seamless data storage and retrieval for improved system performance

PROJECTS

Sages-Femmes du Québec Database

Java, IBM-DB2, Docker

- Designed and implemented Entity-Relationship and Relational Models
- Created and configured tables and schemas in IBM-DB
- Utilized diverse datasets for testing purposes, ensuring comprehensive coverage of potential scenarios
- Conducted advanced queries to validate the readiness and reliability of the developed databases
- Developed a Java-based command-line interface enabling seamless data transactions

McGill School of Computer Science TA Management System

JavaScript, React, PostgreSQL

- Worked as UI/UX designer and Front-end Developer in a team of 3 to create a responsive full-stack management application for McGill staff and students
- Implemented entire user interface from concept through deployment
- Standardized all output with a responsive, mobile-friendly approach and strategy
- Assessed UX and UI designs for technical feasibility
- Developed user-facing feature such as: login and registration page, dashboard, rating TA feature, and system operations feature

EDUCATION

McGill University

Montréal, Canada

Bachelor of Science in Computer Science, Minor in Philosophy

August 2018 – June 2022

TECHNICAL SKILLS

Languages: Python, Java, C/C++, SQL, TypeScript, JavaScript, Rust, HTML/CSS, PHP, Bash

Technology and Tools: Git, React, Node.js, Flask, Django, Svelte, Docker, Amazon Web Services, Jenkins, GitHub, Bitbucket, Jira, Confluence, VS Code, PyCharm, IntelliJ, Figma, Linux, MacOS

Libraries: pandas, NumPy, Matplotlib, TensorFlow, SciKit-Learn, BeautifulSoup, Selenium, SQLAlchemy, peewee

Industry Knowledge: Version Control, Object-Oriented Programming, Agile Development, Test-Driven Development