

FLAVIA Y. OUYANG

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EMPLOYMENT

Software Engineer

SociVolta Inc, Montreal, CA

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

July 2022 - Present

- Extract real-time and historical energy data from different market sources and vendors using **Python**
- Normalize each source's protocol into the same internal format using **pandas**, **polars**, and **numpy**
- Maintain and extend data extraction, transformation, and consolidation libraries
- Manage data processing metadata in **MongoDB**
- Investigate and address data quality issues on **MySQL** database and utilize **CI/CD** pipelines to rapidly iterate
- Designed and implemented data processing framework to support various workflows, improving extensibility and maintainability of the system while increasing data-processing capabilities, and reducing execution time of each run by 30%
- Designed and developed data lineage system to allow comprehensive recordings of data origin and data flow
- Created over 600 automated Extract, Transform, Load (ETL) jobs using **Apache Airflow**
- Led data transformation library refactoring and adopted **JSON** format for transformers

Founding Engineer

Weltschmerz Studio, Montreal, CA

Full stack web development for an artist collective studio

April 2019 - May 2022

- Design client-side and server-side architecture with **Figma** and UML modelling tools
- Build features and applications with a responsive design using **React** framework
- Develop and manage well-functioning **PostgreSQL** databases in **supabase**

PROJECT & EXPERIENCE

Sages-Femmes du Quebec Database

Java, IBM-DB2, Docker

Database system for midwives to document information of expecting parents

- Create **Entity-Relationship Model** and **Relational Model**
- Create tables and schemas in **IBM-DB2**
- Gather and inject arbitrary data sets for testing
- Perform advanced queries to ensure the designed database's readiness for real-world application
- Develop command-line interface using **Java** that enables data transactions such as querying, insertion, and deletion

EDUCATION

McGill University, Montreal, QC
Bachelor of Science, Computer Science

June 2022

SPECIALIZED SKILLS

Languages: Python, C++, Java, Rust, TypeScript, SQL, PHP, Bash, HTML, CSS, SCSS, XML

Technologies and Tools: Git, GitHub, Bitbucket, AWS, Jenkins, Apache Airflow, Docker, Kubernetes, React, Flask, Django, MongoDB, MySQL, PostgreSQL, IBM-DB2, Jira, Confluence, Figma, Redis

Industry Knowledge: Object-oriented Programming, Version Control, Agile Development, CI/CD, UML, TDD