

# Jeffrey Chan

LinkedIn: [jeffrey-chak-him-chan](#) | Phone: 514-625-6619  
Email: [chan.jch19@gmail.com](mailto:chan.jch19@gmail.com) | Website: [www.jeffreychchan.com](http://www.jeffreychchan.com)  
GitHub: [github.com/JeffreyCHChan/JeffreyChan](https://github.com/JeffreyCHChan/JeffreyChan)

## PROFESSIONAL EXPERIENCE

---

### Specialist Data Engineer | January 2024 - Canadian National Railway

As a Specialist Data Engineer, I optimized pipeline resiliency in Databricks, built Kafka-to-lake pipelines, developed continuity systems for critical railway systems, and championed data engineering best practices.

#### OBSERVABILITY

- Determining areas for cost reduction, maintaining performance and resiliency of pipelines within **Databricks**.
- Develop the **business continuity** codebase and procedure for critical railway services.

#### DATA PIPELINING

- Construct data pipelines securing and landing data from **Apache Kafka** into the data lake.
- Led discussions on best data engineering practices by applying software engineering techniques.

**Relevant Skills:** *Azure, Databricks, Apache Spark, Python, Kafka, GCP, Informatica*

### Data Engineer | October 2022 – November 2023 Compass Analytics

As a Data Engineer, I built scalable cloud architecture, deployed it onto AWS, developed data pipelines for consumption primarily using Python, Spark, SQL and Databricks, and create data visualizations using dashboards.

#### REAL-TIME ANALYTICS

- Developed and optimized **Python** code to capture and assemble data into Data Lakes and Data Warehouses to support operational reporting, data science and self-service analytics
- Create and maintain optimal and scalable data pipeline architecture using **SQL, Python, Databricks, Spark**

#### DATA INGESTION ENGINE

- Integrated a data ingest system for extracting and storing **25 documents per 30 seconds** into **AWS S3**
- Generated **AWS cloud architecture** designs according to stakeholder plans and requirements

**Relevant Skills:** *Amazon Web Services (AWS), Solution Architecture, Python, Databricks, Spark, Snowflake*

### Data Engineering Developer | May 2021 - August 2021 Intact Financial Corporation

In this role, I translated business demands into technical requirements for the incoming Snowflake database, ensuring data quality using the Erwin Data Catalog and minimizing costly reconfigurations.

#### DATA SYSTEM DESIGN

- Documented conceptual, logical, and physical data models using the **Erwin Data Catalog**
- Built source to target mapping documents to describe data transformations for the **Snowflake** system

#### DATABASE MIGRATION

- Migrated a legacy database to meet new requirements, resulting in monthly **cost savings of over \$15,000**

**Relevant Skills:** *Python, SQL Server databases, Data Analysis, Erwin Data Catalogue, Snowflake*

### Business Intelligence Developer | January 2021 - April 2021 McGill University

As a developer, I developed SQL scripts to automate maintenance tasks on existing Oracle database servers, eliminating costly and time-consuming manual interventions for large databases.

#### DATA EXTRACTION AND ANALYTICS

- Extracted requirements, developed, and tested code, **saving over 20 hours monthly** for database administrators
- Automated business reports and **Oracle** database health reports using **PowerBI** and **SSRS**

**Relevant Skills:** *SQL Server databases, Software Development and Analysis*

## CERTIFICATIONS, DESIGNATIONS & CLEARANCES

---

**Databricks Data Engineer Professional** | December 2024

Databricks Inc.

**Databricks Data Engineer Associate** | December 2024

Databricks Inc.

**Databricks Lakehouse Fundamentals** | January 2023

Databricks Inc.

**AWS Certified Cloud Practitioner** | November 2022

Amazon Web Services

## EDUCATION

---

**Bachelor of Engineering – Software Engineering C-Edge**

Concordia University - Gina Cody School of Engineering, Montreal, QC - Canada

- GPA: 3.57
- Member of the Institute for Co-Operative Education
- Student Leadership: Executive Vice-President, Engineering and Commerce Case Competition

**Relevant Courses:** *Machine Learning, Big Data Analytics, Artificial Intelligence, Data Structures and Algorithms*

## SKILLS & TOOLS

---

**Cloud Services & Tools:** Amazon Web Services, Databricks, Excel, Word, PowerPoint

**Languages:** Python, Java, SQL, MongoDB, JavaScript, HTML, CSS, Git

**Packages & Libraries:** scikit-learn, NumPy, PySpark, pandas, NLTK, TensorFlow, BeautifulSoup, PyTorch

## COMMUNITY/PROFESSIONAL ACTIVITIES

---

**Case Competition Judge** | September 2022 - Present

Engineering and Commerce Case Competition

- Provide feedback to students on innovative engineering and business solutions to industry challenges
- Review and critique student solutions leveraging expertise in engineering and design

**Executive Vice-President** | April 2021 - May 2022

Engineering and Commerce Case Competition

- Led a 20-person team to accomplish their mandates
- Handled operational tasks such as setting deadlines and overseeing department progress
- Oversaw a weeklong international engineering and business case competition

## PROJECTS

---

**Formula 1 Analytics**

- Develop code that streamed real-time car telemetry
- Create dashboards and analysis tools from streamed data

**Relevant Skills:** *Python, Data Networking, Databricks, AWS*

**Capstone**

- Developed a data viewing platform for DICOM files improving the workflow of data scientists.
- Improved responsiveness by over **6000% (70 seconds to 1.5 milliseconds)** using Azure Table Storage

**Relevant Skills:** *Database Design, C#, Backend Development, Azure*

**Course Recommendation System**

- Completed for Big Data Analytics ingesting data and extracting keywords in Excel containing course descriptions
- Applied recommendation models to provide suggestions based on student ratings and course similarity

**Relevant Skills:** *PySpark, Data Engineering, Machine Learning, Python, Excel*

## ADDITIONAL INFORMATION

---

English (Native), French (Spoken, Written) | Cantonese (Spoken)