# **Jeffrey Chan**

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## PROFESSIONAL EXPERIENCE

Data Engineer | October 2022 – September 2023

Compass Analytics

As a Data Engineer, I developed the **data ingestion** engine from the ground up using web scraping libraries, designed scalable **cloud architecture**, deployed it onto AWS, and developed **data pipelines** for consumption.

#### DATA INGESTION ENGINE

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

#### DATA PIPELINES

- Produced pipelines using <u>Python</u> to improve data quality through filtering and transformations, within <u>5 minutes</u>
- Created various data transformation layers to address project requirements for **PowerBI** and analytics tools.

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

## Data Engineering Intern | May 2021 - August 2021

Intact Financial Corporation

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

#### DATABASE MIGRATION

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

#### DATA SYSTEM DESIGN

Mapped data transformations using the <u>Erwin Data Catalog</u> between legacy system and <u>Snowflake</u>

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
- Generated business and Oracle database health reports using Power BI and SSRS

Relevant Skills: SQL Server databases, Software Development and Analysis

## **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: Amazon Web Services

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

Packages & Libraries: scikit-learn, NumPy, PySpark, pandas, NLTK, TensorFlow, Beautifulsoup

#### CERTIFICATIONS, DESIGNATIONS & CLEARANCES

Databricks Lakehouse Fundamentals | January 2023

Databricks Inc.

AWS Certified Cloud Practitioner | November 2022

Amazon Web Services

## **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

## Vice-President, Technology | July 2020 - April 2021

**Engineering and Commerce Case Competition** 

- Led the transition to an online case competition platform during the COVID-19 pandemic
- Administered technical support promptly during the online case competition
- Trained team members by creating written instructions and media

## **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 in retrieving data by over 6000% (70 seconds to 1.5 milliseconds)

Relevant Skills: Database Design, C#, Backend Development

## **Course Recommendation System**

- Completed for Big Data Analytics (SOEN471) ingesting data and extracting keywords from course descriptions
- · Applied recommendation models to provide suggestions based on student ratings and course similarity

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

## **ADDITIONAL INFORMATION**

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