JEFFREY CHAN

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PROFESSIONAL EXPERIENCE

Junior Data Engineer   **December 2022 -**
Compass Analytics. Montreal, QC - Canada

As a Junior Data Engineer, I develop the **data ingestion** engine from the ground up using web scraping libraries, design scalable **cloud architecture**, deploy it onto AWS, and develop thorough **data pipelines** for consumption.

DATA INGESTION ENGINE
- Prototype a system to ingest raw online data by extracting and storing approximately **25 documents per 30 seconds** into data pipelines used by business analysts and data scientists
- Generate architecture designs for current and future plans of stakeholders

DATA PIPELINES
- Produce a script that improves data quality through data filtering and transformations, completing within **5 minutes**
- Create various transformation layers to address business demands and questions
Relevant Skills: *Amazon Web Services (AWS), Solution Architecture, Python, Snowflake, Databricks*

Data Engineering Intern   **May 2021 - August 2021**
Intact Financial Corporation. Montreal, QC - Canada

In this role, I translated business demands into technical requirements for the target database systems, ensuring consistent data quality using **Erwin Data Catalog** to minimize costly reconfigurations. Collaborated with data engineers to manipulate existing data structures and file formats to align with **Snowflake** data types.

DATABASE MIGRATION
- Assisted in migrating the legacy database to meet the input requirements of the insurance pricing engine, resulting in monthly operating **cost savings of over $15,000** for the company

DATA SYSTEM DESIGN
- Analyzed the capabilities of the existing data system, explored potential systems based on new requirements, and proposed suitable solutions

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

Business Intelligence Developer   **January 2021 - April 2021**
McGill University. Montreal, QC - Canada

As a developer, I identified the software requirements and 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, coded, and tested new software, resulting in **saving over 20 hours monthly** for database administrators
- Generated business and 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 (Intermediate), 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
Python   **August 2019**
Testdome

COMMUNITY/PROFESSIONAL ACTIVITIES

Case Competition Judge   **September 2022 - Present**
Engineering and Commerce Case Competition, Montreal, QC - Canada

- 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, Montreal, QC - Canada

- Led a team of Vice-Presidents to accomplish their departmental goals
- Executed administrative tasks to support the President with their mandate and tasks
- Handled operational tasks such as setting deadlines, overseeing department progress, and organizing meetings
- Oversaw a weeklong international engineering and business case competition

Vice-President, Technology   **July 2020 - April 2021**
Engineering and Commerce Case Competition, Montreal, QC - Canada

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

PROJECTS

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) the project ingest data from Concordia's Open Data platform to extract keywords from course descriptions
- Applied Content-Based and Collaborative Filtering 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)