Jeffrey Chan

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PROFESSIONAL EXPERIENCE

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**
- Build dashboards to visualize real-time streamed data being reported

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*

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*

CERTIFICATIONS, DESIGNATIONS & CLEARANCES

Databricks Lakehouse Fundamentals | January 2023
Databricks Inc.
AWS Certified Cloud Practitioner| November 2022
Amazon Web Services

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

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 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)