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Skills Summary

★ ★ ★	Data Engineering & Big Data	★ ★ ★	Business Communication
★ ★ ★ ★	Research & Development (R&D)	★ ★ ★	Produce Design
★ ★ ★ ★	Feature Engineering	★ ★ ★ ★ ★	Problem Solving
★ ★ ★ ★	Machine Learning & Evaluation	★ ★ ★ ★ ★	Project Management
★ ★ ★ ★	Visualization & Monitoring	★ ★ ★ ★	Practical Innovation
★ ★ ★ ★	LLM Apps Development	★ ★ ★ ★	People Management
★ ★ ★ ★	AutoML	★ ★ ★ ★	Cross Team Collaboration
★ ★	MLOps	★ ★ ★ ★	Story Telling

Work Experience

Scotiabank

Toronto, Canada

Senior Manager of Data Science

2021 Dec. - Now

- **Problem-Solving & Impact:** Leading a data science team to address critical business challenges, including Customer Primacy, Behavior Analysis, Income Prediction, Fraud Detection, Marketing Campaign Optimization, etc. Making impact on billions of customers and generating millions in value for international banking business.
- **Stakeholder Communication:** Having effective communication with stakeholders and subject matter experts to ensure impactful project outcomes and alignment with business objectives.
- **Design Architecture & Lead Development:** Design the architecture of a Feature Store and AutoML pipelines for data exploration, model development, and monitoring. Collaborate with technical teams to ensure seamless integration and optimal user experience.
- **Project Management:** Transform business goals into actionable tasks for data scientists, driving project execution and aligning deliverables with strategic objectives.
- **Mentoring & Team Development:** Providing mentorship to data scientists on both technical and soft skills. Creating a collaborative team environment that encourages independent problem-solving and quality delivery.
- **LLM Application Development:** Developing an AI-powered app, leveraging LLM to create a business intelligence (BI) assistant that can enhance the efficiency of BI teams.
- **Research & Innovation:** Tirelessly exploring new solutions to drive for continuous improvement.
- **Public Speaking & Training:** Presented applied Generative AI solution at Global ODSC Webinar, receiving a 4.2/5 rating. Delivered essential ML practice training to the company's Center of Excellence members.
- **Standards & Efficiency:** Established standards for business intake, code review, employee performance evaluation, and technical documentation. Improved efficiency, delivery quality, and team performance management.
- Main DS Tools: Python, SQL, BigQuery, Gemini AI, OpenAI, DBT, Airflow, Spark Python

Work Experience

Kinaxis

Product Data Scientist

Toronto, Canada

2021 Jan. - 2021 Dec.

- **Client Communication & Solution:** Engaged with supply chain clients to gather business requirements, provided weekly progress updates, and presented final data-driven solutions. Successfully deployed data science solutions for two clients, enhancing distribution center planning and forecasting explainability.
- **Machine Learning Lifecycle Management:** Oversaw machine learning lifecycle, including data engineering, data exploration & preprocessing, feature engineering, R&D, model selection, model evaluation and monitoring.
- **Data Engineering Leadership:** Led data engineering initiatives to enhance internal data collection efficiency and improve data anonymization quality in collaboration with internal stakeholders.
- **Innovative Research & Development:** Conducted research on data simulation, target adjustment, and customized model explainability. Made impact on reducing business risks, optimizing model performance, and delivering customer-centric results.
- **AutoML System Enhancement:** Enhanced the code quality and performance of AutoML systems.
- **Main DS Tools:** Python, Spark Python, Spark SQL, PSQL, Azure Databricks, Tableau

NuData Security, A MasterCard Company

Lead of Data Science

Data Scientist

Vancouver, Canada

2018 Aug. - 2021 Jan.

2017 May - 2018 Aug.

- **Stakeholder Communication:** Facilitated clear communication with internal and external stakeholders regarding business requirements, domain expertise, delivery progress, and deployment needs.
- **Data Evaluation:** Analyzed datasets ranging in the millions to billions of records, to ensure data quality.
- **Research & Innovation:** Conducted research on academic literature and industry trends to design innovative and practical solutions tailored to project needs.
- **Feature Engineering & Model Development:** Led feature engineering and model development efforts, applying statistical and machine learning techniques with rigorous experimentation and project-specific evaluation metrics.
- **AutoML Design & Implementation:** Directed the design and implementation of AutoML pipelines for feature generation, machine learning, and statistical models. Ensured high delivery quality through comprehensive code reviews and clear documentation.
- **Cross-Functional Collaboration:** Collaborated across teams to deploy data science models in production, bridging communication gaps between data science, engineering, software development, and testing teams.
- **Business Presentation:** Delivered presentations on customer reports, model performance analysis, and model monitoring. Conducted company-wide technical presentations to introduce new data science solutions and address product team inquiries.
- **Innovation & US Patent:** Filed an individual US patent and contributed in multiple team patents.
- **Main DS Tools:** Python, PSQL, Tableau, AWS

Vancity Savings and Credit Union

Data Science Co-op Intern

Vancouver, Canada

2016 May - 2016 Dec.

- **Stakeholder Engagement:** Engaged with experts in business loans, individual loans, and credit card sectors to gain deep insights into the banking industry and enhance project relevance.
- **Data Preprocessing:** Executed data preprocessing for the Fair & Fast Loan Project, integrating data from over 30 tables across 3 data warehouses containing more than 10 billion records, achieving 100% merging accuracy.
- **Model Development:** Developed a predictive model for Individual Loan Payback using supervised machine learning methods, experimented on over 100 billion data records, achieving over 96% balanced accuracy.
- **NLP Model Development:** Created a model for the Mortgage Loan Purpose Project utilizing Natural Language Processing (NLP) techniques to assist business experts in understanding clients' reasons for mortgage loans.

- **Customer Feedback Auto Collection:** Developed a model for the Customer Complaints Auto Processing Project during Vancity's financial system migration, enabling decision-makers to efficiently analyze daily customer complaints.
- **Search Engine Optimization:** Engineered a customized neural network search ranking system for the Merchant Search Engine Project, improving user experience in searching for preferred merchants.
- **Tool Assessment:** Assessed visualization and open-source machine learning tools, recommending optimal solutions to enhance the data science team's capabilities.
- Main DS Tools: **R, Python, SQL, Spark, Azure, PowerBI**

Microsoft

Redmond, US

Big Data & Machine Learning Engineer

2013 Jul. - 2015 Jan.

- **Big Data Engineering:** Worked on an anomalies detection project, to convert data scientist's models to Hadoop Hive and execute on 3+TB daily data automatically.
- **Problem Solving:** Developed a big data self-rescue solution to prevent 15+ TB weekly data loss caused by frequent server malfunction.
- **Research & Development:** Developed a SQL Server dynamic job spinning solution to automatically create or kill sql jobs based on the system resources utilization, saved more than 25% system running time.
- **Visualization Development:** Built a Windows 8.1 digital app, with real time visualized data report to provide decision makers with team performance insights.
- **Cross Team Collaboration:** Worked with Azure ML and Microsoft Research teams to integrate a real-time voice transcription feature into Outlook, enabling the automatic conversion of meeting conversations into text.
- Got Microsoft **Data Visualization Hackathon Champion** in 2013 Summer.
- Designed a **3D printed product** and won **Outstanding Contributor award**.
- Main DS Tools: **T-SQL, Hadoop Hive, C#, PowerShell, XAML, Azure**

Education

M.Sc. in Computing Science

Simon Fraser University, Burnaby BC, Canada

2015 Sep. - 2017 Apr.

- **Big Data & Machine Learning focus**
- Worked as **Research Assistant** at Linguistics Discourse Lab

M.Sc. in Management Information Systems

University of Arizona, Tucson AZ, USA

2011 Aug. - 2012 Dec.

- **Data Mining, Software System Design focus**
- Worked as **Amazon Software Development Engineer Intern**
- Worked as **Student Developer** at AI Lab, Human Machine Interaction Lab

Patents

- **RECOMMENDING SIGNALS TO MONITOR IN A FRAUD PREVENTION APPLICATION**
US 490836-9057-US01 · Filed on May 1, 2020
- **ONLINE APPLICATION ORIGINATION (OAO) SERVICE FOR FRAUD PREVENTION SYSTEMS**
US 490836-9047-US01 · Filed on Mar 1, 2019
- **SERVER-SIDE PERSISTENT DEVICE IDENTIFICATION FOR FRAUD PREVENTION SYSTEMS**
US 490836-9039-US01 · Filed on Oct 5, 2018