ADYANT SHARAN

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WORK EXPERIENCE

Financial Data Analyst - President's Choice Financial *(September 2024 - December 2024)* *Toronto, ON*

- Developed **Python** scripts to automate web scraping (**Selenium**), data wrangling & preparation of **OSFI-compliant reports**. Reduced report generation time by **90%**, **100%** regulatory compliance, enhanced efficiency & timely report delivery.
- Implemented **Airflow DAGs** for orchestration & scheduling, containerized processes using **Docker**, reducing setup & deployment times by **75%** and ensuring consistent execution across environments.
- Built **Power BI data models** using **Power Query** & **DAX** to transform and consolidate **fixed income securities & debt issuance** data; streamlined reporting pipelines & enabled dashboards that delivered actionable **capital markets** insights for Treasury.

Credit Risk Analyst - President's Choice Financial *(May 2024 - September 2024)* *Toronto, ON*

- Developed scalable analytics workflows for credit portfolio analysis using **BigQuery**, **Dataproc**, developing **Spark** jobs, and **Cloud Compose (Airflow)**. Designed **cumulative table data design patterns** using **SQL** to optimize temporal joins and reduce query time by **70%**, lowering GCP costs while supporting efficient ad hoc and recurring analysis for senior stakeholders.
- Conducted credit risk analysis using **advanced SQL queries** to identify high-risk customer segments, evaluate credit product performance, and uncover spending patterns across Loblaw-affiliated stores.
- Collaborated with marketing teams to develop acquisition and retention strategies, deploying **20+ LookML** updates and building targeted **Looker** visualizations for insight generation to support campaign optimization & customer growth initiatives.
- Implemented **A/B testing** initiatives to evaluate alternative Transaction-Level Authorizations (TLA), enabling data-driven decision-making and reduced false positive declines by **20%**, while maintaining risk parameters.

Data Analyst & Data Engineer - Brookfield Asset Management *(September 2023 - December 2023)* *Toronto, ON*

- Built automated pipelines ingesting portfolio, risk and market data from **Clearwater, Aladdin, and Bloomberg APIs** using **Workato**, transformed raw data with **AWS Glue**, leveraged **dbt** to implement **star and snowflake schemas** in **Redshift,** optimizing query performance and structuring data for efficient aggregations in downstream analytics and reporting.
- Built ETL data pipelines using **AWS Lambda, Textract (OCR) & Glue** optimizing data processing for invoices. Created a **Power BI** dashboard that delivered real-time vendor KPIs to **15+ executives viewers** and managed **5M+ data points**.
- Developed an **AI chatbot** for the Legal & Audit department using **Azure OpenAI's GPT model;** optimized document chunking strategies, leveraged **vector databases** to enhance context retrieval from proprietary data using a **RAG-style architecture**.

Data Scientist - Genellipse *(May 2022 - May 2023)* *Mississauga, ON*

- Designed and deployed **Spark-based ETL workflows** in **AWS Glue** to preprocess high-volume policyholder data stored in **S3**, transforming raw time-series data for real-time risk prediction using **XGBoost**, reducing policy lapse rates by **15%**.
- Applied **NLP techniques (NLTK)** and **clustering algorithms (K-means)** to classify unstructured insurance claim documents, achieving **92% model accuracy**; grouping similar cases for streamlined processing, resulting in improved claims triage, reduced manual review time and accelerated processing by **30%**.
- Deployed ML models using **SageMaker endpoints** for low-latency inference and monitored performance through **CloudWatch** for ongoing improvements

Quantitative Research Analyst - University of Waterloo (WeAccelerate) *(May 2021 - August 2021)* Waterloo, ON

- Analyzed robo-advisors portfolios using **Python (Pandas, NumPy, Scipy, Matplotlib)** and **Excel**, applying Sharpe ratio, volatility, and drawdown to assess risk-return; performed backtesting on yield curve strategies and refined curve-fitting assumptions to evaluate rebalancing effectiveness.
- Conducted market research on **10+ North American digital wealth platforms**, collaborated with RBC capital markets professionals and academic supervisors. Identified growth opportunities and proposed strategies to enhance AI-driven advisory models, **projecting a 8-12% increase in user engagement** and **3-5% in AUM within the first year of implementation**.

TECHNICAL SKILLS & CERTIFICATIONS

Languages: Python, SQL, R, MATLAB, HTML, CSS, Bash, PowerShell, SAS
Databases: MySQL, PostgreSQL, SQL Server, MongoDB, Cassandra, GCP BigQuery, AWS Redshift
Frameworks: Spark, Kafka, Hadoop, Delta Lake, LangChain, PyDantic, Pandas, Numpy, Plotly, TensorFlow, PyTorch, SciKit-Learn, NLTK, Selenium
Tools: AWS, GCP, Terraform, PowerBI (DAX & Power Query), Tableau, Excel (VBA), Snowflake, Airflow, Prefect, Docker, dbt, Git

EDUCATION

University of Waterloo **2020-2025**
Bachelors in Mathematics, Statistics & Computational Mathematics, Honours, Cooperative Program *GPA: 3.9/4.0*

- Dean's Honours List & Academic Distinction; Club & Activities: Data Science Club, Rock Climbing Wall Staff (2023-present)
- University of Waterloo President's Scholarship & Computational Mathematics Upper Year Scholarship recipient.
- Relevant coursework: Neural Networks, Financial Modeling, Stochastic Processes, Advanced Regression, Classification, and Data Structures and Algorithms