# Abhijeet Singh

Data Engineer II - Bell Canada

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## Highlights

- Skilled Data Engineer II and ML Developer with 5+ years of expertise in building and optimizing end-to-end Data and ML pipelines
- Highly proficient in developing and deploying ELT/ETL data pipelines, data modelling & warehousing, classification & prediction modelling using NLP, LLMs and statistical methods with 7+ years of research and industrial experience
- Demonstrated strong leadership, representation, and teamwork by collaborating with diverse stakeholders, eagerly tackling new challenges and adapting flexibly to evolving project demands
- AWS Cloud Practitioner, Databricks Applied data Science, Databricks Apache Spark SQl for Data Analyst, Bell Excellence and Innovation Award 2022,2024

#### **Relevant Work Experience**

#### Data Engineer II

Bell Canada, Toronto, ON

- Led design and automation 10+ end-to-end data pipelines on Azure, ingesting millions of records daily from SAP and legacy systems into **Snowflake** for market segmentation. Implemented CI/CD with Azure DevOps for streamlined deployments, and used ADF, Azure **Functions**, and ELT best practices to deliver scalable, cost-efficient solutions (40% faster queries & 99.9% uptime)
- Designed scalable, optimized data models and built robust **backend APIs** to manage millions of sales-representative records. Orchestrated end-to-end data pipelines on Azure using Data Factory, Azure SQL, and Azure Functions—delivering high-performance, maintainable solutions aligned with enterprise data architecture standards
- Built and orchestrated telecom order processing pipelines on Azure using Data Factory, Event Hubs, Azure Databricks, and Synapse. Engineered scalable ETL workflows to support machine learning-driven customer segmentation, enabling efficient data ingestion, transformation, and model scoring with 88%+ accuracy. Ensured seamless integration across services with CI/CD and monitoring
- Designed and automated end-to-end data pipelines on GCP using Cloud Composer (Airflow), PySpark on Dataproc, and BigQuery to process 200K+ timesheet records daily. Optimized data reconciliation workflows, reducing errors by 30% and improving performance by 40%, while ensuring scalability, reliability, and cost-effective processing

#### Data Engineer I

Jan. 2021 - Dec 2023

Bell Canada, Halifax, NS

- Designed and deployed a streaming fraud detection pipeline on GCP using **Pub/Sub**, **Dataflow**, BigQuery, and Vertex AI. Enabled low-latency model inference with neural networks, achieving a 92% F1 score and 1M+ annual fraud savings. Built with CI/CD, monitoring, and data quality checks for scalability and reliability
- Built and orchestrated 9 batch prediction pipelines on GCP for customer churn using Cloud Composer, Pub/Sub, BigQuery, and Vertex AI. Automated data ingestion, transformation, and model deployment for scalable, repeatable batch scoring
- Built an automated machine learning pipeline for finance revenue forecasting on Alteryx, reducing forecast error MAPE by 20% and manual effort by 40%

Jan. 2024 - Present

• Gained a deep understanding of **business values** and **agile delivery model** through close collaboration with the business and tech team

# Data Scientist and ML Researcher

Dalhousie University, Halifax, NS

- Developed an NLP-driven binary classification model using TF-IDF and Word2Vec to identify duplicate Quora questions, 84% precision, and 90% recall
- Designed and implemented a sentiment analysis pipeline for online reviews using SpaCy-based feature engineering and cross-validation, achieving a 90.08% F1 score with an SVM model

# **Logistics Data Analyst**

Star Cement, Guwahati, India

- Handled data cleaning, missing value treatment, and preparation for analysis with full process documentation to support logistics insights
- Created visualizations using Python and Tableau to present user stories and drive data-informed decisions in logistics operations

# Education

Masters, Computer Science (ECommerce) Sept. 2019 - May. 2021 Halifax, NS Dalhousie University **B.Tech.** in Computer Science and Engineering Apr. 2014 - Aug. 2018 **AKTU** University Lucknow. India

## Technical & Soft Skills

Languages: Python, Java, C++, SQL, C#, JavaScript, PHP, HTML/CSS, PySpark	
Tools:	GCP, Azure, Linux, Git, Terraform, Docker, Shell, Bash, Apache Kafka, Apache Beam,
Apache Airflow	
Visualizations:	Tableau, Matplotlib, Seaborn, Plotly, Microsoft Power BI, LIME, Streamlit
NLP:	NLTK, Spacy, Gensim, Hugging Face, Stanza, LangChain, DeepSpeed, PaddlePaddle
Libraries:	Tensorflow, Pytorch, Keras, Sklearn, OpenCV, YOLO, Pandas, Numpy
Database:	MySQL, Microsoft SQL Server, SQLite, PostgreSQL
<b>Soft Skills</b> : Management & Leadership, Critical Thinking, Communication, Work Ethic, Time Management, Creativity	

## **Professional Contributions**

- End-to-End Data Engineering: Automating Cryptocurrency Data Pipelines with GCP, Medium. Built a serverless ETL pipeline using Cloud Functions, Cloud Composer, and BigQuery to automate crypto data ingestion and reporting. Article Link
- GitHub Archive: Data Engineering and Analytics Project, Medium Built a scalable GCP data pipeline using Terraform, Cloud Storage, BigQuery, and Cloud Composer to automate GitHub event analytics and infrastructure provisioning. Article Link

Sep. 2018 – July. 2019

Jan. 2020 - Jan. 2021