

# Karthik Selvaraj

Status in Canada: Permanent Resident (PR)

## Summary

Experienced analytics professional with 4+ years of industry expertise, skilled in leveraging advanced analytics methodologies and tools to deliver impactful data analyses. Demonstrated success in achieving a significant cost savings of \$500,000 CAD per year through data-driven insights. Proficient in programming with Python, SQL complemented by exceptional communication abilities, business & financial acumen, teamwork, critical thinking, and problem-solving skills.

## Work Experience

### **Software Developer – Analytics Application, Loblaw Companies Ltd, Brampton** *May 2022 to December 2023 (Full-time)*

- ❖ **Successfully developed and deployed a Java application to facilitate real-time monitoring, logging and analysis of critical metrics and logs from Shoppers Drug Mart stores to GCP and integrated with Looker & Grafana**, achieving a 32% reduction in incident response times, 21% decrease in MTTR, and cost savings of \$75,000 CAD per quarter.
- ❖ **Extracted stores data from Teradata and Google Cloud Platform (GCP) and leveraged Power BI, Looker & Grafana** to drive a 20% increase in operational efficiency, yielding \$50,000 CAD in quarterly savings.
- ❖ **Analyzed business processes, documented technical & business requirements through detailed flowcharts, data flow diagrams and streamlined workflows** for development teams and assisting them in meeting analytical objectives.
- ❖ **Led knowledge transfer of Level 2 support for pharmacy applications**, achieving seamless transition with improved customer experience and \$200,000 CAD annual cost savings.
- ❖ **Communicated insights, key operational metrics, and status reports to stakeholders.**


### **Stores Data Analyst, Loblaw Companies Ltd, Brampton, Canada** *April 2021 to April 2022 (Full-time)*

- ❖ **Worked with retail front-end and back-office systems**, improving checkout efficiency by 10% and reducing transaction errors by 5%.
- ❖ **Utilized SQL, Power BI, Excel, and statistical tools** to surface insights, create metrics, dashboards, and reports for stakeholders.
- ❖ **Queried datasets with SQL and facilitated recurring analyses**, reducing data retrieval time by 20% and improving data accessibility.
- ❖ **Translated business needs into technical requirements**, collaborating with project managers, internal stakeholders, developers & vendors.

### **Business Development Consultant, FTMS Consultants, Cyberjaya, Malaysia** *May 2017 to May 2018 (Full-time)*

- ❖ **Grew leads & customers through marketing campaigns**, resulting in 30% increase in client acquisition and 15% revenue growth, generating additional RM 200,000 per year.
- ❖ **Identified target audiences and markets using SPSS, Excel, and Tableau**, improving campaign targeting by 25% and conversion rates by 15%, generating RM 250,000 additional revenue.
- ❖ **Evaluated marketing campaign performance, analyzed sales, and provided insights**, increasing marketing ROI by 15% and reducing customer churn by 10%.

 Brampton, Canada

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## Skills

### **Programming:**

- Python (*Frameworks: Django, Flask*)
- Java (*Framework: Spring*)
- C# (*Frameworks: ASP.NET, VB.NET*)
- SQL
- JavaScript
- Shell Scripting (Linux)

### **Databases:**

- MS SQL Server
- MySQL
- MongoDB

### **Visualization, BI & Reporting:**

- Tableau
- Power BI
- Looker Studio
- Grafana
- SSAS
- SSRS

### **ETL, Data Warehousing & Big Data:**

- SSIS
- Alteryx
- Teradata
- BigQuery
- Spark

### **API's & Code Testing:**

- REST
- SOAP
- GraphQL
- PyTest
- Pylint

### **Cloud, DevOps & CI/CD:**

- Google Cloud Platform (GCP)
- Docker
- Kubernetes
- Istio
- Gitlab CI/CD, GitHub Actions

### **VCS, IDE & Other Tools:**

- Git / GitHub/ GitLab
- VS Code
- Eclipse
- Tableau Prep
- Google Analytics
- SPSS
- Dynatrace
- Jira
- Confluence

- ❖ Conducted market research to identify market development opportunities, risks, and any market trends and prepared reports, research papers and articles.

#### **Project Intern - Java, HCL CDC, Coimbatore, India**

*December 2015 to March 2016 (Part-time)*

- ❖ Successfully Implemented secure ID-based two-server **Password Authenticated Key Exchange (PAKE) encryption mechanism using Java**, ensuring robust data protection and privacy.
- ❖ **Used and applied various tools and technologies for core Java application development.**
- ❖ **Documented solutions** utilizing flowcharts, layouts, diagrams, charts, code comments.

#### **Software Developer Trainee, Sierra ODC Pvt Ltd, Coimbatore, India**

*May 2015 to November 2015 (Full-time)*

- ❖ **Developed and maintained web and desktop applications**, adhering to requirements and industry best practices.
- ❖ **Used ASP.NET, VB.NET, ADO.NET, SQL Server, HTML, CSS, JavaScript** and other established development tools, guidelines, and conventions with great understanding of MVC architecture.

### **Education**

- ❖ **Post-Bac Diploma in Business Analytics (PBD-BA)**  
*Cape Breton University, Sydney, Canada - 2019 to 2021*
- ❖ **Master of Business Administration (MBA)**  
*Anglia Ruskin University (FTMS Campus, Cyberjaya, Malaysia) - 2016 to 2017*
- ❖ **Bachelor of Engineering (BEng)**  
*Anna University (KGiSL Campus, Coimbatore, India) - 2011 to 2015*

### **Portfolio Projects**

- ❖ News Headline Classification using Multinomial Naive Bayes, Support Vector Machines & Neural Network with SoftMax Layer ☞
- ❖ NY311 – Predictive Analytics on NY Housing Complaints ☞
- ❖ Article Category Classification and Prediction using Natural Language Processing & Logistic Regression ☞
- ❖ Market Basket Analysis using Associative Data Mining & Apriori Algorithm ☞

### **Certifications**

- ❖ Google Cloud Big Data & Machine Learning Fundamentals ☞
- ❖ IBM Data Analyst Professional Certificate ☞
- ❖ edX – Data Science & ML Capstone Project ☞
- ❖ Tableau A-Z: Tableau Training for Data Science ☞
- ❖ Agile with Atlassian JIRA ☞

### **Publications**

- ❖ Consumer Perception Factors for Fashion M-Commerce and its Impact on Loyalty among Working Adults ☞
- ❖ Predicting Consumer Perception and its Impact on Purchase Intention for Residential Property Market ☞
- ❖ Assessment of Extended E-S-Qual Model in an M-Commerce Setting ☞

### **Data Analysis Core Competencies:**

- Problem Identification & Definition
- Data Acquisition & Integration
- Data Cleaning & Wrangling
- Exploratory Data Analysis
- Statistical Analysis & Data Modeling
- Data Preprocessing & Feature Engineering
- Model Selection, Training, Development & Deployment
- Model Evaluation & Validation
- Data Visualization
- Business Intelligence & Communication

### **Machine Learning:**

- Supervised Learning
- Unsupervised Learning
- Natural Language Processing
- Reinforcement Learning
- Transfer Learning
- Deep Learning
- Computer Vision

### **Data Science Libraries:**

- NumPy, Pandas, Polars, PySpark
- Scikit-Learn, XGBoost, TensorFlow, Keras, PyTorch
- Matplotlib, Seaborn, Plotly
- NLTK, Gensim, Hugging Face Transformers, OpenCV
- ArcGIS, MapInfo, Folium

### **Business Acumen:**

- Financial Analysis
- Market Research
- Business Development
- Strategic Planning
- Operations Management
- Project Management

### **Soft Skills:**

- Communication
- Cross-Functional Coordination
- Teamwork
- Leadership
- Critical Thinking
- Problem Solving

### **Agile Methodologies:**

- Scrum, Kanban