

TONI ANEV

EXPERIENCE

SANOFI | MACHINE LEARNING ENGINEERING LEAD *Toronto, ON | Jun 2023 – Present*

- Directed architecture and scale-out of Sanofi's AI infrastructure, managing a \$12M+ global HPC platform (Nvidia A100/H100, EKS, FSx, SSE-S3) powering research across multiple therapeutic areas.
- Standardized infrastructure-as-code (IAC) practices with Terraform and automated compute provisioning pipelines, increasing throughput by 23% and enabling fully reproducible ML experimentation at scale.
- Led cross-vendor integrations with BioMap and XtalPi to deploy next-generation protein prediction models exceeding benchmark accuracy, negotiated performance SLAs and long-term support agreements.
- Operationalized internal solubility and binding-affinity models through AWS SageMaker and AWS Bedrock reducing time-to-production by 26% and driving adoption across 7+ global R&D teams.
- Built and developed a high-impact ML engineering organization (5 engineers, 2 PMs, 15+ contractors), instilling a culture of rapid iteration, peer learning, and technical excellence through mentorship, design reviews, and training programs.

PETCO | TECHNOLOGY LEAD

Toronto, ON | Jan 2023 – Jun 2023

- Built and led a 5 person ML engineering team, driving adoption of modern MLOps standards on GCP (GKE, Dataproc, Cloud Composer, CI/CD) and cutting model deployment cycles by 25%.
- Redesigned Petco's price-elasticity modeling platform using Snowflake, Vertex AI, Airflow, and Seldon, reducing runtime from 24 hours to 4 hours and compute load by 32%, enabling faster pricing experimentation.
- Directed a \$3M personalization program to build and productionize a recommendation engine combining clickstream, transactional, and product data — delivering a 3% uplift in basket size and driving \$13M/month in incremental revenue.

LOBLAW COMPANIES LIMITED

| SENIOR MLOPS ENGINEER

Toronto, ON | Mar 2020 – Jan 2023

- Led architecture and rollout of a promotion optimization engine spanning 16 divisions and 200+ product categories, built on GCP Dataproc, Terraform, and Airflow (Cloud Composer) enabling automated pricing decisions across enterprise scale.
- Developed and deployed a microservices-based orchestration framework that reduced batch latency by 73%, cut compute costs by \$2.7K/month, and improved system resilience via automated alerting and CI/CD enhancements.

| SENIOR DATA ENGINEER

Toronto, ON | Aug 2019 – Mar 2020

- Built and launched a precision segmentation platform processing over 1B transactions annually from 21M loyalty members, driving \$42M in annual incremental revenue through targeted marketing.
- Created an internal campaign design tool that improved segmentation and execution efficiency by 68%, reducing manual setup time from days to hours.

| DATA ENGINEER

Toronto, ON | Jan 2019 – Aug 2019

- Designed and productionized Loblaw's first in-house ML decisioning engine for price sensitivity, sell-through optimization, and markdown timing — delivering a \$15–20M (~25%) annual revenue lift.
- Collaborated with leadership to establish pricing metrics and dashboards that informed C-suite strategic planning.

NUMERIS | RESEARCH ANALYST

Toronto, ON | Sep 2016 – Jan 2019

- Automated ingestion and quality monitoring of national audience data (~27M individuals) using Python and PL/SQL, improving data throughput by 90%+ and reducing manual processing overhead.

UNIVERSITY OF TORONTO | RESEARCH ANALYST

Toronto, ON | Jan 2014 – Nov 2015

- Developed end-to-end ETL and warehousing pipelines to analyze research trends for 1,600+ principal investigators and 5,000 faculty, supporting funding allocation and collaboration analytics.

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EDUCATION

Data Analyst Nanodegree

Udacity Inc. | 2018

Bachelor of Science

McMaster University | 2012 – 2016

EXPERTISE

Languages

Python · SQL · JavaScript · Go · R · Cypher · Scala · HCL · Bash

Orchestration

Airflow · Kubeflow · Docker · Databricks

Compute

Dataproc · Apache Spark · Hadoop · Hive · PubSub · Cloud Functions · App Engine · Cloud Run · Vertex AI

Frameworks

Express.js / Node.js · Django · Flask · Firebase · Poetry · Great Expectations

Storage

BigQuery · Oracle · Teradata · Mongo DB · Neo4j · PostgreSQL · Snowflake

Versioning

Gitlab · Github · Bitbucket

Visualization

PowerBI · Cytoscape · Tableau · Plotly · Miro

Project Management

Jira · Confluence · Slack · Aha! · Asana

CERTIFICATES

DB-110 Apache Spark Tuning

Databricks | 2020
[Course Certificate](https://databricks.com/certification)

Machine Learning in Image Processing

Google Developer Group | 2020
[Course Certificate](https://codelabs.developers.google.com/codelabs/ml-in-image-processing)

PROJECTS

Multivariate Analysis Using R

Utilized: ggplot2, dplyr, gridExtra
<https://github.com/tonianev/Multivariate-Analysis-Using-R>

Twitter Archive Analysis

Utilized: Pandas, Numpy, Matplotlib
<https://github.com/tonianev/Twitter-Archive-Analysis>