

# VENKAT VIVEK

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 [venkat-vivek](#) |  [VenkatVVV](#) |  [venkat vivek](#)

Toronto, ON, Canada

## EXPERIENCE

### • Machine Learning Engineer

May 2023 - May 2025

Nectar First  / OutPoint 

Toronto, ON, Canada

- Led technical ownership of a **Marketing Mix Modeling (MMM) SaaS** platform, guiding development and deployment across a tech stack including **Flask** (Backend), **Node.js** (Frontend), **JAX**, **TensorFlow**, **PyTorch** and **scikit-learn's ElasticNet** for **Bayesian causal inference** and regression
- Delivered MMM performance readouts for **E-commerce** and **CPG** brands, quantifying incremental media lift and providing data-driven recommendations for marketing budget optimization.
- Conducted geographically-based **A/B testing** experiments using Meta's **GeoLift** package on **R** for geostrategic recommendations.
- Migrated cloud workflows from **AWS** to **GCP**, converting **bototo3** Lambda functions to GCP equivalents using **Cloud Run Functions**, **Pub/Sub**, and **Cloud Storage APIs**, reducing infrastructure costs while maintaining performance and scalability.
- Researched and co-developed a chatbot powered by the DeepMind **Gemini LLM**, integrated with a **LangChain Retrieval-Augmented Generation (RAG)** system leveraging proprietary internal documentation to enable conversational access to marketing insights.
- Executed cross-functional data science solutions, including **Looker** dashboards to replace manual reports, **HuggingFace** transformers to evaluate creator content, and lead verification automation using **Google Places API** to improve marketing accuracy.
- Refactored **data ingestion pipeline** for improved maintainability, automating API pulls from platforms such as Meta, Google Ads, Google Analytics 4, TikTok, Pinterest, Snapchat, and The Trade Desk, with **continuous integration** into the database via scheduled **Cloud Run jobs**.

### • Data Analyst Intern

May 2021 - August 2022

GEOTAB 


Oakville, ON, Canada

- Provided analytical support for a **Telematics SaaS** platform that serves over 55,000 global customers.
- Enhanced scikit-learn's **Random Forest Regressor** model used to predict and identify customer churn by 25% with pragmatic feature engineering and hyperparameter tuning.
- Conducted segmentation analysis of customer and partner support tickets using **NLP K-means clustering**, and presented actionable insights to the VP of Customer Success.
- Designed and implemented a product maintenance dashboard in **Redash** with **BigQuery**, streamlining the visibility and tracking of all active products managed by the Customer Experience Data Analytics team.

## PROJECTS

### • MIE490Y Capstone: Shift the Status Quo

Sept 2022 - May 2023

Penske Truck Leasing Co. 

- Honoured with the **Wallace G. Chalmers Engineering Design Scholarship** and the **Peri Family Industrial Engineering Design Award**.
- Designed and solved a timetable-constrained distance minimization optimization problem, adhering to client-defined scheduling and operational constraints.
- Created a Scheduling Optimization Tool using the **Gurobi Optimization Program**.

## SKILLS

- **Programming:** Python, SQL, JavaScript, R, Excel VBA
- **Database Systems & Cloud Platforms:** PostgreSQL, GCP, AWS, Databricks
- **ML/AI:** NumPy, Pandas, NumPyro, JAX, TensorFlow, PyTorch, keras, Sci-Py, scikit-learn, NLTK, PySpark
- **Visualization:** Looker, Matplotlib, seaborn, Redash, Tableau, Power BI
- **DevOps:** Git, Airflow, Docker, Terraform, JIRA

## EDUCATION

### • University of Toronto

Sept 2018 - June 2023

BASc. in Industrial Engineering

Toronto, ON, Canada

- AEMINAIEN: Minor in Artificial Intelligence Engineering
- AEMINBUS: Minor in Engineering Business

## ADDITIONAL INFORMATION

**Languages:** English, Français

**Interests:** Birdwatching, Dostoevsky, GeoGuessr, Canadian Sports and the city of Toronto

**Extracurriculars:** Hands-on Biodiversity Volunteer at the Royal Ontario Museum (ROM)