ISRAEL ALOAGBAYE IGIETSEMHE

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PROFILE

A multi-talented data scientist experienced in working with large datasets, generating business insights, and providing prescriptive analytics for addressing complex business concerns. Proficient in distribution, predictive, and hypothetical modelling. Worked on machine learning projects with CIBC, Unilever Canada, Nestle Canada, and Loblaw Companies Limited. Dedicated to ongoing growth and learning and bringing value to dynamic teams.

Areas of Expertise:

- Supply Chain Analytics
- Forecasting
- Cloud Computing
- Prescriptive Analytics
- Business Insights
- Data Science and Machine Learning

PROFESSIONAL EXPERIENCE

KETTEQ   September 2022- Present

Lead Data Scientist, September 2022

Responsible for the development and deployment of machine learning forecasting models on the KetteQ demand and operations planning software platform.

- Leveraged my expertise in Python and the sktime library to build and implement automated machine learning pipelines for forecasting at scale, reducing the time required to generate accurate predictions.
- Developed causal machine learning models to analyze the impact of holidays and promotions on product demand, providing actionable insights for marketing and sales teams.
- Modularized code using object-oriented programming and connected Java and Python, resulting in more efficient implementation of model pipelines.

LOBLAW COMPANIES LIMITED   2021 – 2022

Data Scientist, Supply Chain Analytics, May 2022 – July 2022

Responsible for the exploratory data analysis for large datasets involving multiple distribution centers across different zones using Big Query.

- Developed multistep, univariate, and multivariate shipment forecasting models using autoregressive integrated moving average (ARIMA), Prophet, and SARIMAX with average accuracies over 75%.
- Reviewed R scripts for new product introduction using a Gower's distance as a similarity measure to get reference products for forecasting new products to ensure future accuracy.

Data Science Analyst, Intern, 2021 – 2022

Conducted exploratory data analysis, developed machine learning models for health care data analytics, and presented business insights to key stakeholders.

- Implemented a boosted tree classifier on Big Query ML for predicting patient churn with an AUC of over 65%.
- Initiated and implemented a patient likelihood classification model for predicting the most likely patients to respond to a recommendation notification with a testing accuracy of approximately 70%.
- Researched and presented concepts on the mathematics of deep learning and recommender systems to team members on a biweekly basis with proper documentation. Improved the team's understanding of machine learning.

SHARPESTMINDS   April – August 2021

Data Science Fellow

Participated in a mentorship program and was responsible for building a machine learning web application for Amazon product reviews from data collection to deployment.

- Built a full-stack machine learning web application that classified Amazon product reviews using natural language processing. The product helped customers clarify product selection based on keywords discussed in product reviews.
- Created an original dataset by building a data pipeline that scrapes Amazon product reviews using Beautiful Soup and performs data cleaning to prepare the dataset for topic modelling.
- Applied natural language processing topic modelling using a latent Dirichlet allocation model in SK-learn to identify keywords for each product's review.
- Deployed model as a web app using Python Flask and Heroku.

UNIVERSITY OF TORONTO   2016 – 2021
Machine Learning Team Lead
Collected user and business requirements and compiled detailed project plans for supply chain optimization projects with Unilever and Nestle Canada.

- Developed random forest models to help a large food manufacturing company with underpayment claims classification with a testing accuracy of over 90%.
- Created a local heuristic search model for inventory allocation for large food manufacturing companies with a potential reduction in penalty costs up to $200K monthly.
- Developed demand forecasting models using multivariate regression models, generative adversarial networks and Bayesian LSTMs using Keras, sci-kit-learn, TensorFlow, and PyTorch with an average forecasting accuracy of 80% and less than 5% bias.

E D U C A T I O N

UNIVERSITY OF TORONTO
Doctor of Philosophy, Industrial Engineering, 2023 (expected)

- Applied lattice methods in the robust valuation of financial derivatives with uncertain parameters.
- Relevant Skills: Probability, Statistics, Operations Research, Research and Optimization.

UNIVERSITY OF BENIN
Master of Engineering, Industrial Engineering, 2010

- Relevant Skills: Applied Statistics, Systems Engineering and Mathematical Programming.

Bachelor of Engineering, Production Engineering, 2008

T E C H N I C A L   S K I L L S

Git • GitLab, Google Cloud Platform • Amazon Web Services (AWS) Cloud Platform • Microsoft Azure • JupyterHub • Python3 • SQL • Teradata • JIRA • Confluence • Google Data Studio • PySpark • Power BI • Shell Scripting • Docker • Kubernetes • Airflow • Flask • Heroku • Beautiful Soup • Asana • Spacy • Natural Language Toolkit (NLTK) • Scikit-Learn • TensorFlow • PyTorch • Java •JPype

C E R T I F I C A T I O N S

- Amazon Web Services (AWS) Certified Cloud Practitioner, 2022
- Microsoft Azure Fundamentals, 2021

M E M B E R S H I P S

- Association for Supply Chain Management, 2022 – present
- Canadian Operational Research Society, 2020 – present