

STEFAN FAULKNER

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PROFILE

I'm a second-year Ph.D. student in Machine Learning and Operations Research at the H. Milton Stewart School of Industrial and Systems Engineering at Georgia Tech. Research interests lie broadly in on-line decision-making (e.g., multi-armed bandits and reinforcement learning), online/statistical learning, stochastic optimization, dynamic pricing in ride-hailing systems, and further to that data-driven revenue management problems in retailing (pricing, assortment planning, demand forecasting, supply chain, etc.). In addition, I have three years of experience as a Data Scientist working primarily on predictive modeling problems and developing ETL (Extract, Transform and Load) processes in the Financial Services industry in my home country Jamaica.

EDUCATION

Georgia Institute of Technology

Ph.D. in Machine Learning , Industrial & Systems Engineering

August 2022 - Present

Master of Science in Computational Analytics

August 2020 - April 2022

The University of the West Indies, Mona, Jamaica

Bachelor of Science in Computer Science and Mathematics (Hons)

August 2016 - July 2019

WORK EXPERIENCE

National Commercial Bank Financial Group - Headquarters

October 2020 - July 2022

Advanced Analytics Specialist / Data Scientist

Enterprise Information Management Unit (EIM)

- Building analytical tools to utilize the data pipeline, providing actionable insight into key business performance metrics including operational efficiency and customer acquisition.
- Designed a data-driven classification model to determine the optimal times of day for reaching out to customers with outstanding bad debt on credit cards and unsecured loans. The project's goal was to enhance Right Party Contact (RPC) rates, leading to increased effectiveness and productivity when utilizing the Avaya dialer system.
- Devised an ETL process for the International Standard Classification of Occupations (ISCO) and initiated the development of advanced regression and time series ARIMA forecasting models, incorporating occupation group and customer profile parameters for salaried customers. This project aimed to enhance the existing salary model, enabling more accurate assessment of new customer salaries.
- Developed sophisticated customer lifetime value (CLTV) model by combining BG-NBD and Gamma-Gamma methodologies, resulting in improved customer segmentation and tailored marketing strategies to effectively engage high-value prospects within the banking industry.

August 2019 - September 2020

Data Analyst

Enterprise Information Management Unit (EIM)

- Design and develop SSIS packages using various control flows to transform and load the data from various databases and into servers using SQL Server Integration Services (SSIS).
- Collaborate to understand the business context and apply inductive approaches to discover and communicate valuable new business insights.
- Created several Python and SQL scripts to assist a wide variety of internal divisions for report optimization, where report turnaround time has been reduced from days/hours to minutes.

National Commercial Bank Jamaica Limited

May 2019 - July 2019

Developer Analyst Intern

- Performed data exploration and analysis to successfully build an analytical dashboard for Marketing analysts to target customers for a marketing campaign to increase their current loan portfolio.
- Worked on developing and designing a restful API using JSON Web Token to create an Event Management System. Furthermore, creating a mobile application using the Ionic Framework to integrate the restful API. In addition, managing API interfaces with third-party platforms.

PROFESSIONAL CERTIFICATIONS

Microsoft - Microsoft Certified: Azure AI Fundamentals

Microsoft - Microsoft Certified: Azure Data Fundamentals

Microsoft - Microsoft Certified: Designing and Implementing a Data Science Solution

TECHNICAL SKILLS

Languages	Python, C, C++, MATLAB, R, Java, SQL, Gurobi
Tools/Libraries	HTML, CSS, Flask, SSIS, Microsoft Power BI , TensorFlow
Database and Scripting	Microsoft SQL Server, Oracle, MySQL, MongoDB

REFERENCES

David Goldsman

- Professor
- H. Milton Stewart School of Industrial and Systems Engineering
- Georgia Institute of Technology
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Winston Graver

- Senior Advanced Analytics Specialist
- Enterprise Information Management (EIM) Unit
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