MICHAEL SPAGNOLO

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EDUCATION

The Pennsylvania State University   **University Park, PA**
Behrend College | *Bachelor of Science in Finance*   *May 2020*

Georgia Institute of Technology   **Atlanta, GA**
Scheller College | *Master of Science in Analytics*   *In Progress*

New Horizon Learning
Microsoft Technologies | *20466 Implementing Data Models and Reports with Microsoft SQL Certification*   *Oct 2016*

TECHNICAL SKILLS

- Python Programming: Pandas, NumPy, Sklearn, Matplotlib, Gurobipy, Tensorflow, Pytorch, Streamlit
- Machine Learning: Linear Regression, Logistics Regression, K-means, K Nearest Neighbors, Artificial Neural Networks, Decision Trees and Forests.
- Optimization Modeling: Gurobi Optimization Python API, Excel Frontline Solver. MIP, LP and Non-Linear Programming.
- SQL Server Programming: DDL & DML, T-SQL Queries, Stored Procedures, Views, Triggers, Functions, Basic DBA tasks.
- Cloud Development: Azure, AWS, Virtual Machine provisioning, Database provisioning, Azure Data Factory, ML Studio
- Business Intelligence: Microsoft Power BI, BOARD Analytics, Tableau
- Data Engineering: SQL Server Integration Services, Azure Data Factory, T-SQL, Snowflake, Python
- Other Programming: VBA, DAX, MDX, C# Basic OOP

RELEVANT COURSEWORK

- Programming: Data Structures and Algorithms, SAS Programming, Data Modeling for BI, Computing for Data Analytics, Deterministic Optimization
- Mathematics: Matrix Algebra, Linear Algebra, Econometric Modeling, Calculus
- Probability & Statistics: Inferential Statistics, Hypothesis Testing, ANOVA, Regression, Queuing Theory, Bayesian Statistics
- Finance: Discounted Cashflow Analysis, Financial Modeling, Financial Analysis

PERSONAL PROJECTS

Workforce Planning: Developed workforce staffing model for a Call Center. Using Python and queuing theory to forecast call center demand and convert into headcount requirements.

Data Science Web Application: Built web application using Python and Streamlit that allows the user to implement the K-means clustering algorithm to segment customers by geographic region. Includes custom Map visualizations and Data analysis.

Restaurant Sales Dashboard: Dashboard of daily KPI activity for restaurant. The project included end to end development. Taking source data files using Azure Data Factory for ETL, SQLDB to create star schema as the data warehouse, and Power BI for visualizations and distribution of the dashboard.

Demand Forecast CPG Company: Use Multiple Linear Regression to forecast demand based on trend and promotional experience by customer. Provide a tool that the user can forecast unit sales based on the promotion cadence. Used dummy variable in regression for the various types of promotions.

Front End Database User Interface: Use C# to create a windows desktop application. The application allowed the user to create Topic entries and add notes to the topics. These entries were stored on a local SQL Server database.

PROFESSIONAL EXPERIENCE

American Refining Group   **Pittsburgh, PA**
Senior Financial Analyst | Business Intelligence Developer   *Feb 2016 - Present*

- BI Developer: Administer Business Intelligence Platform and Server. Build new ODBC connections and ETL's from a variety of data sources to the BOARD Platform. Develop multidimensional database and associated objects.
- Spreadsheet Data Modeling: Inventory Planning Models for Operations management, ROI Models for Capital Budgeting, Rail Car Fleet Requirement Monte Carlo Simulation.
- SQL Data Warehouse: Use Star Schema methodology to create data warehouse in SQL Server. ETL using stored procedures, functions, and transact SQL queries.
- SQL Development: End to End Datawarehouse implementation with On Premise SQL DB. Setup Test Environment with Azure SQLDB.

General Nutrition Center   **Pittsburgh, PA**
Financial Operations Analyst   *Jan 2015 - Feb 2016*

- Develop and Implement Operations Dashboard using Microsoft Power BI solutions
- Developed Store Level P&L that was adopted and mandated across all stores
- Statistical Analysis of store level forecast/ budget using accuracy measures
- General Store Level Operations Reporting KPIs, Store Test, Contest Analysis
- Workforce planning: Developed Staffing models and forecasts for each unique store based on historical data

Contessa Premium Foods Inc.   **Wexford, PA /Commerce, CA**
Financial Analyst   *Jan 2013- Jan 2015*

- Developed, implemented, and maintained companies cross functional Sales Forecasting Model for all lines of business, including Sales projections, Volume projections, Procurement, and Production requirements along with Forecast Accuracy metrics. Responsible for integrating the model with company ERP system
- Organized and implemented Trade Deal Committee to analyze, recommend, and approve quarterly merchandizing plans that returned increase profitability for companies Retail Frozen Meals business
- Developed Marketing Velocity Model using raw Nielsen Data to determine brand strength compared to competition in the marketplace using SWOT analysis
- Organized and implemented Foodservice Seafood Pricing Committee to analyze, recommend, and approve pricing strategy