Leland Murrin

Data science graduate with an engineering background focused on financial technology, markets, business intelligence, and generative AI. Inquisitive self-starter with a meticulous attention to data integrity and a keen curiosity for quantitative methods. Proficient in optimizing machine learning models, and presenting clear, insightful visualizations.

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SKILLS

Python/R/SQL/MATLAB

RStudio/Jupyter Notebook

Git/Github | Excel/VBA

Machine Learning

Data Engineering

Data Visualization

LANGUAGES

English
Native or Bilingual Proficiency

French
Native or Bilingual Proficiency

Spanish
Native or Bilingual Proficiency

INTERESTS

Fitness | Aerospace

Robotics | Tennis

Soccer | Cycling

Cosmology

Financial Markets

EXPERIENCE

Data Science Fellow
NYC Data Science Academy

09/2022 - 06/2024 — *New York, New York*

- Served as a lead on a project commissioned by an accounting firm to propose data science automation methods for innovating the due diligence acquisition reporting of small or mid-sized corporations
- Analyzed the pandemic effects on Ames, Iowa housing through sensitivity analysis forecasts and pre vs. post pandemic **A/B testing** in Python
- Performed data research using government, financial, media and crowd-sourced websites for the latest housing, business, and tax information
- Created Python **API** wrapper functions to request lat/long and drive time data in **JSON** format
- Created, published, and presented an interactive, dynamic RShiny dashboard application to forecast NY State Corporate Tax Credits across multiple datasets
- Successfully pre-processed sparse datasets after thorough exploratory data analysis. Examples include anonymizing private datasets, standardizing, imputing, windowing, and automating validation of addresses using reverse geocoding lookups
- Successfully reduced features using stepwise feature reduction and unsupervised machine learning methods, which included **PCA** and **KMeans** clustering
- Optimized predictive models using hyper-parametrization, cross-validation, and regularization. Time series analysis was done using seasonal decomposition and **ARIMA**
- Presented visualizations to a CPA executive using treemaps, heatmaps, and dual-axis plots to justify stationarity and peak-and-trough analysis conclusions. Constructed local area maps using geospatial plots with annotations, multiple legends, and insets

Operations Intern
Opera Solutions

06/2016 - 08/2016 — *Jersey City, New Jersey*

A multinational SaaS company serving federal agencies and multiple Fortune 100 companies.

- Integrated a company-wide OKR performance tracking system with cloud-based CRM software (Salesforce) allowing for automated data collection and visual tracking of productivity
- Analyzed the company's descriptive internal attrition statistics for presentation to potential private equity investors
- Consolidated monthly utilization reporting from three different departments through a dynamic formula based Excel master spreadsheet

Mechanical Engineering Intern
Crane Aerospace and Electronics

06/2014 - 08/2014 — *Lynnwood, Washington*

A technology and equipment provider that produces specifically engineered products for clients in the commercial aerospace, defense and space sectors.

- Conducted a complex failure analysis for an aeronautical Transformer Rectifier Unit using decision tree methodologies to improve future designs and report to Director of Engineering
- Drafted 200+ page engineering reports on an aeronautical Transformer Rectifier Unit (TRU) to be presented to a federal agency

EDUCATION

Bachelor of Engineering in Mechanical Engineering
McGill University

10/2020 — *Montreal, Quebec*

- Capstone Project: Structural Design of a Nano-Satellite with Finite Element Analysis Optimization
- Other Projects: Design of rotor deployment mechanism for eVTOL prototype of the Terrafugia TF-X