Saffron Livaccari

New York, NY | saffron.livaccari@gmail.com | saffronl.github.io | (518) 577-8682

PROFESSIONAL EXPERIENCE

Climate Risk Analyst | ISS Stoxx | New York City, NY   June 2022 – Present
- Assisted a team of three climate scientists on developing issuer-level financial risk models for six natural hazard models
- Investigated legacy python code to improve maintainability and performance through use of classes, GitLab versioning, and config files
- Streamlined the physical risk data pipeline to enhance control and efficiency by consolidating process steps, reducing dependencies, incorporating MinIO cloud database, and integrating NetCDF gridded data using xarray
- Performed UAT testing on the updated pipeline by writing unit tests and validation for a database of 25,000 records

Project | Private Equity Emissions Tool
- Independently built a Private Equity Tool in Jupyter Notebook to calculate carbon emissions of private equity portfolios
- Developed a library of functions for the Private Equity Tool which includes the use of Pandas, classes, JSON get/pull requests to APIs, several exhaustive QA checks, MinIO Cloud Database, and config driven development to increase consistency and ease of use
- Wrote extensive documentation of the Private Equity Tool on GitLab Wiki for maintainability for future users
- Designed the physical risk private equity graphs in Excel and Python for reports delivered to clients

Project | Attribution Analysis
- Developed a framework in Jupyter Notebook to attribute changes in a portfolio's carbon footprint to a variety of factors: the portfolio managers investment decisions, changes in financing of companies, or a company's decarbonization efforts
- Synthesized multiple statistical research papers to create a comprehensive attribution analysis methodology

Project | Emissions Reporting Consultant
- Delivered 9 bespoke client reports derived in python with stringent timelines and extreme sensitivity to data quality
- Created intensive QA checks which resulted in higher quality deliverables which bolstered credibility with clients
- Managed email inbox of client questions with high quality and timely replies

Water Resource Data Analyst | The Water Center at Penn | Philadelphia, PA   Oct. 2020 – May 2022
- Analyzed 1,500 bacteria samples for the Schuylkill and Delaware River using Python and Excel, resulting in the discovery of new locations for public access to the river and a new theory on combined sewer overflows
- Independently wrote Python code for various statistical tests including the Statistical Threshold Value, Geometric Mean, and Student's T-Test, and produced over 50 graphs using matplotlib in Python to identify trends of bacteria and rainfall in rivers
- Worked with a team of 5 scientists to write a 50 page research paper with the goal of advising multiple stakeholders on a number of possible options for improving access for communities along the rivers

Sustainability Data Analyst | Penn Sustainability | Philadelphia, PA   June 2021 – May 2022
- Analyzed 600,000+ purchased records within Excel to quantify Scope 3 supply chain carbon emissions with the goal of reducing Penn's carbon emissions to net zero by 2042 , resulting in the discovery of 5 major hot spots to target and reduce
- Wrote a 23-page report (background, methodology, and results) on Penn's Scope 3 emissions following the GHG Protocol

Financial Consultant | First Derivatives | New York City, NY   June 2018 – Feb. 2020
- Facilitated the Liquidity Stress Testing project for ScotiaBank as the lead UAT tester for BAU monthly code releases
- Inspected a total of 21,000 client records by collecting verification documentation for new compliance standards for BNY Mellon

EDUCATION

University of Pennsylvania | Master of Environmental Studies | Philadelphia, PA   May 2022
Concentration in Resilience and Adaptation, GPA 4.0/4.0

Project | NYC Inundation using Remote Sensing
- Discovered the 5 most inundated neighborhoods in NYC after a flash flood event by comparing two images from Sentinal 1-SAR and calculating a threshold value written with JavaScript in Google Earth Remote Sensing

Stony Brook University | BSc (Hons) Applied Mathematics and Statistics | Stony Brook, NY   May 2018
Concentration in Operations Research, Minor in Music, GPA 3.7/4.0, Magna Cum Laude

Project | Engineering Study Abroad at the Turkana Basin Institute in Kenya
- Managed a relocation project of 50 students from a collapsing building to new classrooms from start to finish (idea, design, planning, gathering resources, and implementation), executed with the cooperation of 5 locals

CERTIFICATIONS

IBM Data Science Professional Certificate | IBM   March 2025
- SQL, Machine Learning, Data Analysis, Data Visualization

SKILLS
- Python, Excel, Git