

Saffron Livaccari

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SKILLS

- Python, Excel, GitLab, Jupyter Notebook, ArcGIS Pro (vector and raster)

PROFESSIONAL EXPERIENCE

Climate ESG Analyst | Institutional Shareholder Services | New York City, NY June 2022 – Jan. 2024

- 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
- Performed UAT testing for a client facing API which resulted in creating and assigning 8 JIRAs for the relevant code changes

Project | Private Equity Emissions Tool

- Independently built a Private Equity Tool in Jupyter Notebook to calculate carbon emissions of private equity portfolios, written specifically for use by team members without coding experience
- 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
- Initiated a project to develop a client facing Private Equity API within Papermill in response to client demand

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 | Physical Risk

- Assisted a team of three data scientists on reviewing legacy python code to improve maintainability and performance
- Streamlined the physical risk data pipeline for enhanced control and efficiency by consolidating steps within the process

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 Engineer 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 Sentinel 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