Saffron Livaccari

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RELEVENT EXPERIENCE

Climate Analyst (ESG Consultant) | **Institutional Shareholder Services** | New York City, NY July 2022 – Present

- Built a Private Equity Tool in Jupyter Notebook to calculate bespoke carbon emissions of a financial portfolio of private equity issuers, written specifically for use by team members without coding experience
- Config driven development to fortify the robustness, consistency, and increase ease of use
- Independently wrote a library of functions for the Private Equity Tool which includes the use of classes, JSON get/pull requests to APIs, several exhaustive QA checks, Pandas library, and MinIO Cloud Database
- Wrote extensive documentation of the Private Equity Tool on GitLab Wiki for additional resiliency for future users
- Developed a comprehensive excel file for clients to automatically recreate graphs and calculations depending on user's inputs, which reduced client questions on our emissions calculations
- Managed email inbox of client questions with high quality and quick 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
- Created a reproducible process to ingest various datasheets into Python and export a universal format
- Independently wrote Python code for various statistical tests including the Statistical Threshold Value, Geometric Mean, and Student's T-Test, and exported results to an easily digestible Excel file using Pandas
- Produced over 50 graphs using matplotlib in Python to visualize the correlation and identify trends of bacteria amounts with rainfall and location resulting in discovering the effects of CSO overflows
- Researched how stormwater affects CSOs to advice stakeholders on the best policies for equitable access to water
- Utilized QGIS to understand the distance between CSO's, sampling locations, and bacterial amounts

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
- Resulted in the discovery of 5 major hot spots to target and reduce (i.e. medical and laboratory equipment)
- Wrote a 23-page report (background, methodology, and results) on Penn's Scope 3 emissions following the GHG Protocol

Python Programming Internship | **Invsto** | Lansdale, PA April 2020 – Aug. 2020

- Lead database programmer in a fully remote fintech trading startup with a 10-person international team
- Produced a database with over 5,000 records of stocks with Python code to read, upload, and check data in AWS Arctic

Financial Engineer Consultant | **First Derivatives** | New York City, NY June 2018 – Feb. 2020

- Supervised daily USD/CAD reconciliation from branch transactions for Bank of Montreal
- Inspected a total of 21,000+ out of date client records by collecting reliable verification documentation to adhere to new standards of KYC/AML Protocol for Bank of New York Mellon
- Facilitated the Liquidity Stress Testing project for ScotiaBank as the lead UAT tester for BAU monthly code releases

Narrative Team Leader | **EPA Rainworks Challenge** | University of Pennsylvania Sept. 2021 – Dec. 2021

- Collaborated with a team of 12 students on a green infrastructure engineering project connecting stormwater management and environmental justice for a high school in West Philadelphia with plans of implementation in 2022
- Wrote a 12-page report on the design process and developed a survey to discover what student and staff most desired
- Led data and narrative teams with virtual meetings on weekly project updates (3 meetings/week)

Masters Student | **Relevant Course Work** | University of Pennsylvania Sept. 2020 – May 2022

- Sensing the City: Used Arduino motors to respond to issues experienced in cities
- Remote Sensing: Analyzed satellite imagery using Google Earth Engine
- ArcGIS Pro: Two courses focused on analyzing Raster and Vector datasets for applications to the environment
- Contaminated Site Investigation: Geology course focusing on CERCLA/RCRA to investigate and clean up Superfund Sites

Engineering Study Abroad Project | **Turkana Basin Institute** | Kenya May 2017-June 2017

- 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

EDUCATION

University of Pennsylvania | **Master of Environmental Studies** | Philadelphia, PA May 2022

Concentration in Resilience and Adaptation, GPA 4.0/4.0

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, WISE Honors Society

SKILLS

- Python (Pycharm IDE & Jupyter Notebooks), Excel, Word, PowerPoint, ArcGIS Pro (vector and raster), Google Earth Engine Remote Sensing (JavaScript), QGIS, Arduino (C++)