Saffron Livaccari, CFM

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EDUCATION

University of Pennsylvania | Philadelphia, PA   (exp) May 2022
Master of Environmental Studies,   Concentration in Resilience and Adaptation, GPA 4.0/4.0
Relevant Courses: The Future of Water, Development of Sustainable Water Resources, Water Policy
                                Risk Assessment, Floodplain Management, Remote Sensing, ArcGIS Pro
Capstone Thesis: Designing green infrastructure in Manhattan on 34th and FDR Drive (funded by a grant)

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

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PROFESSIONAL EXPERIENCE

The Water Center at Penn | Philadelphia, PA
Water Resource Data Analyst
Developing Pittsburg Water Department's Strategic Plan for Stormwater   Sept. 2021 – Present
- Reviewed PWSAs master rate and capital plan to communicate rate increases to the public
- Created programmable rate increases on an excel spreadsheet highlighting the required rate changes needed to meet implementation cost

Roadmap for a Delaware River Upgrade for Recreational Use   Oct. 2020 – Present
- Analyzed 1,500 bacteria samples for the Schuylkill and Delaware River using Excel and Python
- 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 of bacteria amounts with rainfall and location resulting in discovering the effects of CSO overflows
- Collected 10 water samples from the Delaware River focused on a rain event
- Resulted in the first in-depth review on how rainfall affects the pollution of the river for the sake of public health

Penn Sustainability | Philadelphia, PA   June 2021 – Present
Sustainability Internship
- Supported goals for the Climate and Sustainability Action Plan 3.0 within the Sustainability Office
- Quantified Scope 3 supply chain carbon emissions using the software Quantis resulting in the discovery of major hot spots for Penn to target and reduce
- Wrote a methodology report to release to the public regarding Penn's Scope 3 emissions
- Investigated the sustainable procurement of furniture cumulating into a 10-page guide shared to Penn employees
- Coordinated the outreach to 15 of Penn's waste and recycling facilities resulting in an infographic on the fate of waste

Invsto | Lansdale, PA   April 2020 – Aug. 2020
Python Programming Internship
- 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 using MongoDB and Python
- Developed python code to read, upload, and check data in AWS Arctic

First Derivatives | New York City, NY   June 2018 – Feb. 2020
Financial Engineer Consultant
- Supervised daily USD/CAD reconciliation from branch transactions for the Project Delivery Team in 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 monthly code releases

Turkana Basin Institute | Ileret, Kenya   May 2017 – June 2017
Engineering Study Abroad Project
- Relocated 50 elementary students from a collapsing school building to new classrooms built using an abandoned dormitory as a foundation
- Managed the relocation project from start to finish (idea, design, planning, gathering resources, and implementation), executed with the cooperation of 5 locals
- Inspired tribe members to create instruments out of unwanted items and initiated a music club at the school

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CERTIFICATIONS
- Certified Floodplain Manager (CFM)
- 40-Hour HAZWOPER Certification

SKILLS & INTERESTS
- Python, Excel, ArcGIS Pro, Google Earth Engine, Rhino, Photoshop
- Rock Climbing, Hiking, Classical Music, African Drumming