Jacob Stanger

Philadelphia, PA • 617-519-9516 • jstanger@sas.upenn.edu   www.linkedin.com/in/jacob-m-stanger

PROFESSIONAL EXPERIENCE

May 2021 – Present

Researcher, Software Engineer, Data Analyst, Modeler
- Assess relationships between various biological indicators to classify population transformations
- Utilize data from complex climate models to create accurate predictions of the future of climate change
- Convert, clean, and apply data, creating linear regression models to understand natural systems
- Communicate findings and theories with other lab members, contributing to Ocean Sciences Conference

August 2022 – January 2023

Computational Lab Instructor, Teaching Assistant
- Field questions from students about complex concepts in environmental dynamics for several hours each week
- Instruct students in multiple coding languages on labs, including topics such as modeling & coding etiquette
- Convey concepts of fluid dynamics, fundamental geological processes, & biological and chemical interactions

June 2020 – August 2021

Bioinformatician & Statistician
- Restructured large datasets and implemented external code; used machine learning to evaluate correlations
- Collaborated with other researchers and shared findings among peers; coordinated with others to reconfigure data
- Constructed reliable infrastructure for creating usable datasets with Linux in communication with various operating systems

May 2019 – August 2019

Researcher, Software Engineering, Systems Engineer, Designer
- Collaboratively engaged in every part of the conception of a Star Camera for studying cosmic background radiation
- Assisted in the assembly of an international, multi-university telescope aiming to map 40% of the sky (Simons Observatory)

June 2017 – August 2017

Researcher, Software Engineering
- Utilized machine learning algorithms to expand an existing circulating tumor cell (CTC) traumatic brain injury (TBI) detection project into a more computational space

EDUCATION

University of Pennsylvania, Master of Environmental Studies (Climate Systems & Solutions**), May 2024 (**Expected)   **4.0/4.0**
University of Pennsylvania, Bachelor of Arts in Physics (Computational Techniques**), December 2022**   **3.67/4.0**
Lower Merion High School, Class Valedictorian**, June 2018**   **5.0/5.0**

TECHNICAL SKILLS

Programmer & Designer (Java, Python, R, MATLAB, OCaml, C, SolidWorks)
Information Sharing Techniques (PowerPoint, LaTeX, Literature Reviews, Excel, Canva)
Familiar with Networked Systems, Cloud Computing, Machine Learning, Problem Solving, and Logic

RELEVANT COURSEWORK

Advanced Earth Surface Processes, Leading Change for Sustainability, Energy Waste and the Environment, Mathematical Foundations of Computer Science, Programing Languages & Techniques, Data Analysis for the Natural Sciences, Advanced Hydrology, Advanced Linear Algebra, Quantum Physics of Materials, Intro to Quantum, Electromagnetism I & II, Thermodynamics, Analytical Mechanics, Physics Principles 1-3, Laboratory Electronics, Calculus 1-4, Ocean and Atmosphere Dynamics, Environmental Fluid Dynamics, Global Climate Change, Proseminar: Contemporary Issues in Environmental Studies, Sociology of the Climate Emergency, Intro to Brain & Behavior, AP Environmental Sciences (5), AP Spanish Language (5)

OTHER POSITIONS/ACTIVITIES

Public Relations Manager, University of Pennsylvania Outdoors Club   **January 2020 – Present**
    Maintain club website & social media continuously, coordinate apparel products, organize meetings and trips for 3500+ members
Marketing/Musician/Transcriber/Composer, University of Pennsylvania Music Ensembles   **August 2018 – Present**
    Multi-instrumentalist & marketing chair in Penn's only Latinx music ensemble; Composer, transcriber, musician in Jazz Combo

INTERESTS

Environment, Energy, Languages, Mobile Apps, Music, Communication, Innovation, Technology, Nature, Design, Games, Climbing, Traveling, Surfing, Geography, Sustainability, Sailing, Biking, Thrifting**,** Buddhism, Activism