PETER ANDREW KANNAM

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EDUCATION

Dartmouth College Class of 2022
Major in Earth Sciences

TETRA TECH – Environmental Geologist/Data Scientist

Data Science Experience: March 2023 - present

Lead Statistical Analyst – Chicago Environmental Justice Index

- Automated aggregation of a composite indicator model and complementary sensitivity analysis to perform rigorous testing of the Index and its methods
- Researched and implemented techniques to judge the effectiveness of model aggregation, effect of different modeling decisions, and the relative importance of specific indicators
- Identified trends in the Index results by evaluating them against census demographic datasets
- Prepared and presented reports on findings to a working group of government officials, industry professionals, and advising academics

Data Manager – Superfund Technical Assessment and Response Team

- Manages and validates environmental sample databases for multiple project managers using USEPA Scribe software, queries databases using SQL for reporting and analysis
- Designs interactive field surveys for sampling events to produce results easily compatible with database integration and geospatial visualization
- Conducts analyses on laboratory data using Python and Julia, presents methods and results with technical writing and visualizations.

Fieldwork Experience: May 2022 - present

Air Monitoring and Telemetry Specialist - Superfund Technical Assessment and Response Team

- Establishes and maintains networks of air monitoring instruments with telemetry using radio, Wi-Fi, and cellular connections during environmental disasters and cleanups
- Performs analysis on large time series datasets to inform government agency decision making

Handheld XRF Analyzer Lead – Navajo Abandoned Uranium Mines

- Operates and maintains technical instrumentation in rugged, backcountry field conditions
- Adapts sampling plans to field conditions maintaining best practices for geospatial analysis
- Performs baseline response studies and daily quality control experiments on instruments to determine empirical margins of error for specific instruments
- Combines measurement results with environmental observations in real time to draw conclusions on site conditions based on multiple lines of evidence

Project Scientist – Superfund Technical Assessment and Response Team

- Designs and conducts field sampling events for soil, air, and water contaminates using laboratory defined sampling methods and standard operating procedures
- Produces Field Sampling Plans and Project Reports deliverables for internal reviewers and external clients

RESEARCH EXPERIENCE

Independent Researcher, Strauss Lab, Dartmouth College December 2020–June 2022

- Managed a research project on the host phase of mercury in ancient sediments to evaluate the use of sedimentary mercury concentrations as a geochemical proxy for global volcanic events
- Analyzed journal articles on topics including geochemistry, geochemical cycling, modeling, and statistics to develop best practices for processing and interpreting mercury concentration data
- Applied statistical techniques using MATLAB and Julia computer languages to analyze and create visual representations of changing relationships between mercury and major/trace elements

SENIOR THESIS

*"*Host Phases of Sedimentary Mercury in Early Paleozoic Deep-Marine Sedimentation and Implications on its Use as a Geochemical Proxy*"*, 2022

CONFERENCES

"Multiple host phases of mercury in the early Paleozoic Road River Group of northern Yukon, Canada" (Poster), Geological Society of America Annual Conference, October 9-13, 2021.

SCHOLARSHIPS & AWARDS

Mark C. Hansen Undergraduate Research, Scholarship, and Creativity Fund Recipient 2021
Dartmouth Undergraduate Research Scholarship 2019-2020
AmeriCorps Educational Scholarship 2018

SOFTWARE

- Languages: Julia, Python, MATLAB, R, Markdown, LaTeX
- Programs: Microsoft Excel, Adobe Illustrator, GitHub, Microsoft PowerPoint, Microsoft Word, Microsoft Access, USEPA Scribe, USEPA Viper, Microsoft SharePoint

CERTIFICATIONS and PROFESSIONAL TRAINING

- 40-Hour HAZWOPER (2022, 2024, current)
- DOT Hazardous Materials Shipping Certification, Radiation (2024, current)
- OSHA Confined Space Entry Training (2023, current)
- Tetra Tech Bootcamp; sampling methods, instrument maintenance, Level A PPE (2023,2024)
- Emergency Medical Technician [Basic] (2018), Wilderness First Responder (2020)

EXTRACURRICULAR ACTIVITIES

- Outreach Chair, Slackline Chicago September 2023 - present
- Recruitment Chair, Dartmouth Ultimate Frisbee Team March 2020 – May 2022
- Adirondack 46er Club Member July 2013 – July 2021
- Vermont Long Trail Solo Thru Hike July - August 2019
- Student Conservation Association, Massachusetts AmeriCorps Program March – August 2018

INTERESTS

Slacklining, Board Games, Backpacking, Reading, Juggling, Telemark Skiing, Bicycles, Rock Music, Godzilla