

EDUCATION

Bachelor's of Science in Geology (2018) - City College of New York (CUNY)

Bachelor's of Arts in Anthropology (2013) - Hunter College (CUNY)

WORK EXPERIENCE

Columbia University (Lamont Doherty Earth Observatory - LDEO) - Rolling Deck to Repository Program (R2R)

Staff Associate II (Feb 2024 - Present)

- Lead LDEOs team in planning and execution of environmental data ingestion
- Conduct research on vessel devices and develop descriptive documentation.
- Develop visualizations for National Science Foundation (NSF) Annual Reports
- Prepare presentations, reports, and status updates for internal team members and stakeholders, including the public and government agencies
- Perform quality assurance and generated data products for diverse environmental data

Senior Research Assistant (Jan 2020 - Feb 2024)

- Execute bash and PHP scripts to manage and process research vessel data as a part of the R2R program ensuring the long-term preservation and distribution of environmental sensor data collected by United States academic research fleets.
- Led the curation of the PostgreSQL R2R database to catalog cruise survey metadata and data, ensuring efficient storage and retrieval of information.
- Developed SQL queries to extract insightful information from the database, such as retrieving cruise information, survey details, and instrument usage.
- Developed a Python based tool to set cruise and fileset level release dates for all historical United States Antarctic Program (USAP) data ingested into R2R.

Langan Engineering & Environmental Services

Staff Scientist - Environmental Consultant (Jan 2019 - Jan 2020)

- Classified soil samples, rock cores, and sampled groundwater throughout NYC
- Deployed air monitoring equipment to collect environmental data at work sites in adherence to the Community Air Monitoring Program (CAMP)
- Serve as the point of contact for non-technical audiences in communities surrounding site activities as well as site owners, subcontractors, and site developers
- Prepared comprehensive status reports for daily and periodic submission to NYC environmental agencies

INTERNSHIP EXPERIENCE

Southern California Earthquake Center (SCEC)

Hazard and Risk Visualization Intern (June 2017 - Aug 2017)

- Collaborated with teams to generate and clean earthquake simulation data.
- Generated ground acceleration maps for simulated earthquake sequences using Java based tools

- Applied a FEMA ArcGIS model to visualize and estimate economic loss and casualties during earthquake events. Integrated maps into an interactive StoryMap for display during the 2017 SCEC Annual Conference

Lamont-Doherty Earth Observatory -

Geoinformatics Geophysical Summer Intern (June 2016 - Aug 2016)

- Improved the Global Multi-Resolution Topography (GMRT) synthesis with LiDAR terrestrial survey data from the U.S. Geological Survey repository
- Translated, extracted, and resampled seismic data using UNIX commands for integration into GeoMapApp - an open source geospatial visualization software

RESEARCH EXPERIENCE

STEMSEAS

- Mentored undergraduate students aboard a NSF funded marine research vessel transit discussing general career options and challenges for underrepresented groups in Earth Science (2022)
- Participated as an undergraduate student aboard a NSF funded marine research vessel. in the deployment and calibration of oceanographic data devices and sensors (2018)

City College of New York – Planetary Volatiles Lab – Undergraduate Research Assistant (2018)

- Conducted a literary review of published continental flood basalt emplacement timescales

RESEARCH PROJECTS

Capstone Undergraduate Thesis Project: “*Plagioclase Crystal Size and Number Density as a Qualitative Method for Orange Mountain Basalt Melt Textural Analysis*” (2018)

- Mapped and determined Plagioclase crystal density in Orange Mountain Basalt thin sections with the Olympus BX53 Petrographic Microscope to approximate crystallization timescales

PUBLICATIONS/POSTERS

- Abstract: “***Data Immersion for CCNY Undergraduate Summer Interns at the IEDA Geoinformatics Facility***” (First Author) - Presented a poster detailing the work completed in the IEDA Geoinformatics facility at the American Geophysical Union (AGU) Fall Meeting with NSF internship participant support and awarded AGU 2016 Fall Meeting General Student Travel Grant.
- Abstract: “***USEIT: Hazard and Risk Visualization of Earthquake Scenarios***” - Poster detailing the work completed during the SCEC Undergraduate Studies in Earthquake Information Technology (UseIT) Internship by the Hazard and Risk Visualization (HaRVi) Team. The HaRVi team analyzed probable multi-event earthquake sequences that could threaten the Los Angeles region using visualization tools to illustrate expected ground shaking, economic losses, and casualties.

CONFERENCES & OUTREACH

- **2023 INSPIRE City Tech Community Summer Program**

- Led a discussion on geoscience career paths and the STEMSEAS program with Brooklyn-based high school students.
- **2023 RVTEC Conference - Honolulu, HI**
 - Led a breakout session on Data Transfer Methods.
- **2022 RVTEC Conference - Seattle, WA**
 - Provided an annual update on Data Ingestion and collaborated with the U.S. Academic Fleet Operators.
- **2022 SACNAS NDiSTEM Conference - San Juan, P.R.**
 - Led a panel on attracting and retaining underrepresented groups in ocean sciences and the intersection of science communication with diversity, equity, accessibility, and inclusion.

SKILLS/CERTIFICATIONS

- Applications: ArcGIS, GSuite, HAZUS, Microsoft Office Suite, & QGIS
- Programming: Bash scripting, Command line, PostgreSQL, Python, Matlab & HTML
- Project Management: JIRA/Confluence & Asana
- Languages: Fluent in English and Spanish