DEAN WILSON GELLING

TECHNICAL SKILLS:
Applications & Platforms: QGIS, Mergin Maps, Felt, Excel, Google Workspace
Programming and Automation: Python, Jupyter Notebooks, GDAL, GeoPandas, Rasterio
Data Infrastructure: PostgreSQL/PostGIS, REST APIs (Mapbox, Google Earth Engine, Trimble Connect)
ML/DL & Advanced Analytics: PyTorch, CNNs for object detection and image classification

EDUCATION
Columbia University, School of General Studies, New York, NY
B.A. in Environmental Science, *cum laude*, received May 2024
Honors: Dean's List (all eligible semesters), School of General Studies Honors Society, Senior Marshall
Thesis: Extricating Glacial Surges and Advances in Sangvor District, Tajikistan

Sciences Po Paris, Le Havre, France
B.A. in Political Humanities, minor in Sociology, received July 2024

WORK EXPERIENCE
Lithos Carbon, New York City, New York (Remote)
Geospatial Data Engineer January 2025 – Present
Develop geospatial data pipelines and strict data standards, manage growing PostGIS databases for a soil testing operation spanning 32,000 samples. Create automated tools in Python to facilitate the ingestion and QA/QC of operational data at scale. Design geospatial visualizations and apply robust quantitative analysis and geoprocessing steps to prepare data for carbon registries. Leverage open-source datasets to perform regional-scale studies to drive business development. Currently working on a cloud-native application to monitor land under management using high-resolution satellite imagery.
NASA EarthRISE (Formerly DEVELOP), New York City, New York (Remote) May 2026 – Present
Research Consultant
Developing a product for a California-based water resources board to monitor the growth of exposed Great Basin terminal lake beds over time, applying multispectral sensors to detect seasonal surface water changes.

RESEARCH EXPERIENCE
Juneau Icefield Research Program, Juneau, Alaska
Student Researcher June 2024 – August 2024
Practiced safety protocols, crevasse rescue and wilderness first-aid, and self-supported backcountry fieldwork. Installed a variety of temporary geotechnical and geodetic stations alongside other faculty members. Work culminated in a poster titled *Periglacial dendroclimatology at Red Mountain, eastern Juneau Icefield, British Columbia*, presented at the AGU 2024 fall meeting.
Columbia University, Harriman Institute, Sangvor District, Tajikistan
Student Researcher August 2023 – May 2024
Implemented a guided field expedition in the Gharm Valley, Tajikistan. Coordinated with stakeholders and officials from the Tajik Center for Glacial Research. Collected geotechnical observations on Kyzylsu and Baralmos Glaciers in the Petra Pervogo range in support of research on cryospheric and geological hazards for undergraduate thesis.
Columbia University, Earth Institute, New York City, New York
Undergraduate Research Assistant June 2022 – May 2023
Processed water samples collected from the field, conducted measurements in the lab, analyzed remote sensing data, and generated scientifically backed conclusions on how changing environmental conditions affect water quality, biogeochemistry and ecological processes in the Long Island Sound and the Bering Strait

LANGUAGES: German (Proficient), French (Proficient), Persian (Proficient), Korean (Conversational)
AWARDS:
- US Department of Education Foreign Language and Area Studies Fellowship
- Honorable mention, NSF Graduate Research Fellowship Program (2024): "A Tool for Remote Assessment of Glacier Lake Outburst Flood Risks in the Pamir-Hindu Kush Continuum"