

Phone:



MaarG r o eg

Email: mvg6010@psu.edu

Languages: Romanian and English

Academic Achievement:

Schreyer Honors College, Dean's List (all semesters), EMSAGE (award given by college), GPA 3.82

Education: Aug 2022 – May 2026 Pennsylvania State University

Bachelor of Science in Earth Science and Policy, within the Geoscience department

Minors in Environmental Engineering, Geographic Information Systems, Political Science

Downingtown STEM Academy: Summa cum laude graduate, International Baccalaureate program

Experience:

2024-Present: Research Intern in Australia - National Science Foundation

Built a watershed hydrological map of a demonstration farm in Australia for Monash University on ArcGIS pro. Spearheaded technological challenges overseas. Facilitated collaboration between Monash University's Chemistry Department and Penn State for the final project. Presenting that research at AGU conference this December and conducting a thesis based on the work.

2023 - 2024: Research Intern - Rainfall Validation Study in Kenya

Supported Professor Helen Greatrix's project on satellite meteorology, specifically rainfall, in Samburu County, Kenya. Used R to create a validation study between IMERG and CHIRPS, two leading products in rainfall precipitation measurements.

Spring 2023: Research Intern - Thermal Imaging in the Galapagos Islands

Assisted PhD student Carolina Klier with her PhD project on thermal imaging in the Galapagos Islands. Gained proficiency in GIS technologies (CVAT and QGIS) to support machine learning technology used for invasive species detection.

Projects:

Applied real-world data on the Owens Lake Freshwater System in the Sierras in California and produced a mathematical model in STELLA representing the lake's environmental system.

Designed an ArcGIS StoryMap on the Amazon deforestation in Brazil. Researched and compiled databases for the project, refining over 1 TB of data, like shapefiles, GeoJSON, TIFF files, etc. . .

Utilized real-world COVID data to code an interactive map displaying case and death counts per state. Formulated research questions and professionally presented data findings.

Wrote a technical scientific review paper of 20 pages in the geology/geosciences field.

Skills:

Software

ESRI Products, R, Python, QGIS, CVAT, ENVI Products, STELLA, Microsoft Office, geoprocessing skills and analyses, Google Earth Engine, Crystal Maker

Leadership

2024-2025: Student Sustainability Advisory Council

Nominated to develop a sustainable plan initiative for Penn State, to be presented to the university's President and Vice President.

2024-2025: Music Service Club Service Leader

Active volunteer at nursing homes and surrounding communities.

Led meetings and organized volunteer events, such as LifeLink and THON.

2024-2025: Earth and Mineral Sciences Ambassador: Selected to provide tours for college.

2023-2024: Schreyer GLOBE Living Learning Community - Principal Director

Organized events fostering global perspectives for the GLOBE, a living learning community for students within the Schreyer Honors College.

2022-2023: Sustainability Ambassador at the PSU Sustainability Ambassador's Club

Taught middle school kids in the State college area about sustainability.