

# EULLE STANN S. CASAQUITE

Skokie, IL 60077

✉ eullecasaquite21@augustana.edu

☎ 224-415-6989

## EDUCATION

Graduation: May 2025

Augustana College Rock Island, IL

GPA: 3.78

**Bachelor of Arts in Geology, Geography, Minor in GIS and Technology**

### Dean's List (All Terms)

Coursework: Digital Cartography and Design, Advanced GIS, Drone Mapping & GIS, GIS for Natural Sciences, Natural Resource Management, Geomorphology and Paleoclimatology, Hydrogeology, Structural Geology and Tectonics, Geography of World Regions, Computer Science: Python, Mineralogy, General Chemistry, Pre-Calculus

## SENIOR THESIS RESEARCH EXPERIENCE

**Collaborator for the Philippine National Volcanic Threat Assessment Project**

Jul 2024-Current

- Philippine Institute of Volcanology and Seismology, Quezon City, Philippines

### **SENIOR THESIS: IMPROVING THE EXPOSURE CALCULATION FOR THE VPI30 COMPONENT OF THE PHILIPPINE NATIONAL VOLCANIC THREAT ASSESSMENT USING SENTINEL-2 IMAGERY DATA AND GIS EXTRACTION METHODS**

- Joined large population dataset to polygon layers containing town boundaries
- Extracted *built area* pixels from Sentinel -2 imagery data
- Compared current exposure calculation vs modified exposure calculation to identify differences in quality
- Results will be assessed by the Philippine Institute of Volcanology and Seismology to be part of the Philippine National Volcanic Threat Assessment report
- Will present results at the Geological Society of America 2025 Joint North East – North Central Section Meeting, Erie, PA

## RESEARCH EXPERIENCE

**Philippine Institute of Volcanology and Seismology | Quezon City, Philippines**

Jun 2024 - Jul 2024

- Created maps identifying Mt. Tumatangas volcanic deposits
- Generated GIS layers to illustrate possible lahar volcanic mudflow extent of a Mt. Tumatangas eruption
- Completed remotely piloted aircraft training through drone simulations and real-flight experience
- Prepared Mt. Pinatubo pumice samples for X-Ray Fluorescence Spectrometry analysis

**Upper Mississippi Center | Augustana College, Rock Island, IL**

Jul 2023 - May 2024

- Completed field and lab work to isolate, detect and quantify microplastics in sediment samples
- Deployed multi-parameter probes to assess water quality of streams in Rock Island (IL) and Scott County (IA) watersheds
- Collected fish and microorganism samples in streams to assess biodiversity health of streams
- Generated GIS maps for the city of Rock Island
- Used large dataset of field survey results to identify and inventory possible lead service lines in the city of Rock Island
- Canvassed houses to identify service line materials for the city of Rock Island

**Upper Mississippi Center | Augustana College, Rock Island, IL**

Jul 2022 - Apr 2023

- Completed field and lab work to isolate, detect and quantify microplastics in water samples
- Participated in field work to identify a pond bathymetric profile
- Deployed multi-parameter probes to assess water quality of streams in Rock Island (IL) and Scott County (IA) watersheds
- Conducted experiments to test field-collected water samples for E. coli and Fecal Coliform levels

## TEACHING ASSISTANT EXPERIENCE

### Geology 201 - History of Life

Aug 2024 - Dec 2024

- Assist professor with weekly labs, answer student questions and facilitate review sessions for exams
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## PRESENTATIONS

### ***TOPOGRAPHIC INTERPRETATION OF TUMATANGAS VOLCANO, SULU, PHILIPPINES (July 2024)***

- Presented to the volcano section of the Geology and Geophysics Research and Development Division at the Philippine Institute of Volcanology and Seismology, Quezon City, Philippines

### ***UBIQUITOUS MICROPLASTICS IN FLUVIAL SEDIMENTS OF URBAN STREAM SYSTEMS IN DAVENPORT AND BETTENDORF, IOWA (April 2024)***

- Presented results at the Geological Society of America North Central/South Central Meeting, Springfield, MO

### ***STREAM ASSESSMENT OF MICROPLASTICS IN QUAD CITY WATERSHEDS (April 2023)***

- Presented results at the Upper Mississippi River Research Consortium, La Crosse, WI
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## FIELD COURSES AND EXPERIENCES

- **Taal Volcano, Philippines (July 2024)** – 1-week fieldwork experience to identify and understand volcanic processes through main crater tephra and tuff deposits across various outcrops; conducted house-to-house survey to assess damages of volcanically induced fissures
  - **Collinson Ecological Preserve, IL (April 2023)** – semester-long geomorphology and surficial geology mapping, focused on interpreting glacial geology in the Midwest
  - **Mojave Desert/Death Valley, CA (January 2023)** – 3-week field mapping course, which included measuring stratigraphic sections, mapping faults, and creating a geological map of rock units in the Rainbow Basin syncline near Barstow, CA.
  - **Baraboo, WI (November 2022)** – weekend field trip to Baraboo WI, to study a syncline and analyze geological structures using a Brunton Compass and stereonet.
  - **South Dakota/Wyoming (August 2021)** – Summer field course of intro-level geologic concepts in the Badlands, Devil's Tower, Bighorn Mountains, and Wind River Canyon, with a focus on rock identification and pressure/temperature concepts.
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## TECHNICAL SKILLS

- ArcGIS Pro - Data Engineering, Georeferencing, Charts and Reports, StoryMaps, Survey123, Cluster Analysis, Regression Analysis, Data Interpolation
  - Adobe Illustrator - ArcGIS Maps for Adobe Creative Cloud, Subsurface Maps, Thematic Maps, General Reference Maps
  - Remote Sensing - Remotely piloted aircraft training, PIX4D Mapper, Image Classification, Change Analysis
  - Computer Languages – Python
  - Lab Skills – Fluorescent Microscopy, Coelert-18 Analysis, Organic Digestion, Density Separation
  - Languages – Fluent in Filipino and Bisaya
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## HONORS & AWARDS

### Deans Scholarship Augustana College

- Awarded to students with an excellent academic record amounting to \$26,000 annually

### IINSPIRE-LSAMP Grant National Science Foundation

- Received NSF-funded grant for a research project amounting to \$3500

### Lucken Geology Scholarship Augustana College

- Awarded to geology students based on academic merit and financial need amounting to \$2000 annually