

ESTHER OYEDELE

Blacksburg, Virginia, 24060 | | estherooyedele@gmail.com | www.linkedin.com/in/esther-oyedele
ORCID iD: <https://orcid.org/0000-0002-0032-3438> | Website: <https://estherooyedele.mypixieset.com/>

EDUCATION

Virginia Polytechnic Institute and State University (Virginia Tech)

Doctor of Philosophy in Geosciences

Certificate in Data Analytics

Certificate in Future Professoriate

Dissertation: Integration of Remote Sensing Data and Models for Prediction of Groundwater Response to Anthropogenic Drought

Advisor: Dr. Susanna Werth

Relevant Courses: Advanced Groundwater Hydrology, Statistics in Earth & Environmental Science, Radar Remote Sensing of Earth and Atmosphere, Analysis of Spatial Data, Data Analytics, Machine Learning, Space-Based Hazard Monitoring, Space-Based Environmental Intelligence, Preparing the Future Professoriate, Pedagogical Practices in Contemporary Contexts, and Communicating Science.

Blacksburg, Virginia

expected, 12/2027

In View

In View

Bowling Green State University

Master of Science in Geology

Certificate in Geospatial Technology

Thesis: Climate-Related Crustal Loading Deformation around Lake Mead, Nevada- Arizona, USA

Advisor: Dr. Yuning Fu

Relevant Courses: Applied Remote Sensing, Spatial Modeling, Advanced Cartographic Techniques, Applied Surface and Groundwater Modeling, Groundwater Hydrogeology, Tectonic, and Environment Geodesy.

Bowling Green, Ohio

04/2023

12/2022

Federal University of Technology Owerri

Bachelor of Technology in Geophysics

Project: Integrated Sequence Stratigraphic Interpretation of 'Van' Field, Offshore Niger Delta

Advisor: Dr. Samuel O. Onyekuru

Relevant Courses: Fundamentals of GIS, Remote Sensing, Physical Hydrology, Physics of the Earth, Applied Seismology, Map and Map Interpretation, Geophysical Data Processing, Geophysical Field Techniques, Geology Field Mapping, Well Log Analysis, Petroleum Geology, and Exploration Methods.

Imo State, Nigeria

02/2019

SKILLS

Programming and Software

- MATLAB • Python • R • GMTSAR • WabInSAR • ArcGIS • QGIS • ENVI • SNAP • QSWAT
- Google Earth • LaTeX • Quarto

Research and Data Analysis

- Remote Sensing • Geographic Information System • Data Collection • Proficient with MS Office Suite
- Proposal and Grant Writing • Scientific Reporting

Interpersonal and Communication

- Team Leadership • Team Player • Multitasking • Problem-solving • People and Time Management
- Fluent in English and Yoruba languages • Basic Proficiency in French and Igbo languages

Science Communication

- Public speaking • Science writing • Podcasting

Technical Skills

- Filming • Video editing • Audio editing • Social media management

PROFESSIONAL EXPERIENCES

Virginia Polytechnic Institute and State University (Virginia Tech)

Doctoral Research Assistant

- Assuming responsibilities in research and creative activities for the Hydrologic Innovation & Remote Sensing Lab (HIRS)

Blacksburg, Virginia

01/2023 – Present

- Using satellite observations, hydrologic and climate data to study the impacts of extreme weather events in the southwest USA
- Developing work plans in accordance with our research objectives
- Performing scientific tasks in support of projects
- Preparing research report as needed for journal publications
- Interacting primarily with my advisor and lab members within the department
- Demonstrating strong analytical, problem-solving, and communication skills, as well as the ability to work independently and as part of a collaborative research team in a dynamic and interdisciplinary research environment.

NSF National Center for Atmospheric Research

Visiting Doctoral Researcher

Boulder, Colorado
05/2024 – Present

- Conducting innovative research at the Research Applications Laboratory (RAL)
- Actively contributing to the implementation of the novel CONUS404 dataset and WRF aimed at addressing real-world challenges in societal impacts of weather and climate variability.
- Analyzing large datasets and conducting statistical and numerical analyses to gain insights into complex atmospheric processes and phenomena.
- Collaborating with interdisciplinary teams of scientists to design and execute research projects, foster knowledge exchange, and achieve project objectives.

NASA Jet Propulsion Laboratory

Research Graduate Student

Pasadena, California
06/2023 – 08/2023

- Worked with the Sea Level and Ice (329C) Group
- Used remotely sensed data products and measurements, and modelling techniques to improve sea-level projections
- Lead research tasks to develop new approaches/methods to research sea-level science
- Assisted with data analysis, technical analysis and fundamental research
- Interacted primarily with my mentor and group members within the Earth Science section

Bowling Green State University

Graduate Research Assistant

Bowling Green, Ohio
08/2022 - 12/2022

- Conducted research project on crustal deformation around Lake Mead, Arizona-Nevada, USA
- Sort guidance in applying applicable policies, procedures and practices to new situations to determine appropriate action
- Received guidance from advisor to modify scientific development and test techniques, processes and procedures
- Prepared a detailed research report needed for journal publication

Degeconek Nigeria Limited

Geoscientist

Graduate Trainee

National Youth Service Corp (NYSC)

Geophysicist (Intern)

Lagos State, Nigeria
09/2020 - 12/2020
02/2019 - 08/2020
03/2019 - 02/2020
09/2017 - 12/2017

- Successfully led and managed tasks in different positions while exercising team spirit
- Carried out 2D and 3D seismic interpretation of oil fields in Niger Delta Basin, using Geographix and Petrel software
- Carried out petrophysical and volumetrics Analysis of the oil fields
- Evaluated some marginal oil fields in the OML 40 (Gbetiokun), OML 49 (Bime, Olure, and Omofejo), and OML 67 (Amaniba, Ekpat, and Ndibe) during the 2020 Marginal Field Bid Round in Nigeria
- Did data prying for the marginal fields within OML 49 (Bime and Olure) and OML 95 (Olomu and Azama)
- Wrote technical bid and competent persons report for some of the evaluated marginal oil fields

Okoro and Company (WA) Limited

Geophysicist (Intern)

Rivers State, Nigeria
09/2015 - 12/2015

- Interpreted geophysical surveys on borehole drilling sites
- Assembled and fixed tools on the borehole drilling rig
- Profiled geological formations encountered while drilling

TEACHING EXPERIENCES

Virginia Polytechnic Institute and State University (Virginia Tech)

Graduate Teaching Assistant

Undergraduate/Graduate Teaching – GEOS 4804/5804G: (Advanced) Groundwater Hydrology

Undergraduate Teaching – GEOS 3014: Environmental Geosciences

Blacksburg, Virginia
01/2024 – Present
Fall 2024
Spring 2024

- Support instructional activities for Geosciences courses, providing guidance and support to undergraduate and graduate students.
- Protocol hydrology lab sessions and grading of lab manuscripts.
- Conduct regular office hours to provide additional academic assistance and guidance to students, addressing questions and concerns related to course materials.
- Assess student performance and provided feedback on assignments, quizzes, tests, and examinations.
- Demonstrate a commitment to fostering an inclusive and supportive learning environment, respecting the diverse backgrounds and perspectives of my students.

Upward Bound Program, University of Toledo

Science Instructor

High School Teaching - Science

Toledo, Ohio

06/2022 - 08/2022

Summer 2022

- Conducted National Aeronautics and Space Administration (NASA) research using GLOBE Observations
- Provided instructional activities to high school students
- Conducted science lab sessions and grading of lab manuscripts

Bowling Green State University

Head, Graduate Teaching Associates

Graduate Teaching

Bowling Green, Ohio

08/2021 - 05/2022

Fall 2021 and Spring 2022

- Mentored and supervised graduate teaching associates in their teaching roles
- Coordinated geological lab sessions and geological field experiences

Bowling Green State University

Graduate Teaching Associate

Undergraduate Teaching

Bowling Green, Ohio

01/2021 - 05/2021

Spring 2021

- Provided instructional activities of the Earth and Environment Sciences to undergraduate students
- Protocoled geological lab sessions and grading of lab manuscripts
- Supervised geological field experiences for undergraduate students

LEADERSHIP EXPERIENCES

Geological Society of America (GSA)

Chair-Elect, Student Advisory Council (SAC)

Member-at-Large, Student Advisory Council (SAC)

08/2024 – Present

07/2024 – 08/2024

- Elected by the GSA community to serve on the GSA SAC for a two-year term
- Elected by the GSA SAC members to serve as a Chair for a three-year term, encompassing roles as Chair-Elect, Chair and Past-Chair.
- Lead representation of student members' interests and concerns to the GSA Council
- Participate in GSA Council meetings as a non-voting invitee and contribute to discussions on policy and initiatives
- Collaborate with SAC members to develop programs and resources for GSA student members
- Assist in planning and organizing student-focused events and activities at GSA meetings
- Facilitate communication between GSA SAC members, GSA student members and the GSA leadership
- Promote student involvement and engagement within the GSA

African Graduate Students' Organization at Virginia Tech

President

07/2024 - Present

- Elected to preside over the activities of the organization
- Provide leadership and direction to the executive board and members
- Organize and facilitate meetings, events, and activities
- Represent the organization at university and community events
- Coordinate collaborations with other student organizations and departments
- Manage the organization's budget and resources
- Promote cultural awareness and engagement among members and the broader campus community
- Champion diversity, equity, and inclusion initiatives within the organization and on campus
- Establish and maintain connections with alumni to build a supportive network
- Engage with prospective Virginia Tech students to promote the organization and assist with their transition to university life

Media Coordinator 06/2023 - 06/2024

- Spearheaded strategic efforts as to enhance organization visibility and engagement across digital platforms.
- Implemented dynamic social media campaigns and curated content, resulting in an impressive over 66% and 79% followers' growth on Instagram and LinkedIn respectively, significantly expanding our community's reach.
- Consistently delivered a weekly newsletter, meticulously sourcing and sharing news, resources, and opportunities beneficial to our members.
- Fostered a well-informed and actively engaged AGSO network through timely and relevant communication strategies.

i-Scholar Initiative

Mentor and Programs Manager 01/2020 - Present

- Mentoring prospective graduate students
- Reviewing students' applications for scholarships and graduate schools
- Helping students prepare for standardized graduate tests
- Working with the secretariat to coordinate the Organization's programs within the year

School of Earth, Environment and Society, Bowling Green State University

Head, Graduate Teaching Associates 08/2021 - 04/2022

- Mentored and supervised graduate teaching associates in their teaching roles
- Coordinated geological lab sessions and geological field experiences

Bowling Green State University

Secretary, Graduate Student Senate 08/2021 - 04/2022

- Performed secretariat roles as assigned by the graduate student senate
- Represented 32 graduate students in the School of Earth, Environment, and Society
- Learnt the latest issues affecting the graduate students I represented and presented them to the graduate student senate
- Advocate for individual graduate students and departmental needs to the general assembly
- Voted on issues and concerns impacting graduate student life

Nigerian Association of Petroleum Explorationists Students' Chapter, FUTO

Sponsorship Chairman 2/2017 - 12/2018

- Oversaw the sourcing of sponsors for workshops, training, and meetings organized by the association
- Planned and executed, alongside other executive members, a two-day Short Course on Sequence Stratigraphy
- Chaired the organization of Chapter Technical Meetings
- Mobilized student members for conferences for their professional development

Federal University of Technology Owerri (FUTO), Nigeria

Ethics and Membership Director, Rotaract District 9140 10/2015 - 10/2016

- Lead membership drives to recruit new members
- Educate new and existing members about Rotary International
- Organize membership training sessions
- Mobilize members for fellowships, training, and seminars
- Serve as a member of the planning and organizing committee for new member inductions and inaugurations

Member, Student Representative Council (MSRC), Student Union Government 10/2015 - 08/2016

- Served as an elected representative of the student body
- Advocated for student interests and concerns in council meetings
- Participated in decision-making processes affecting student welfare and university policies
- Organized and supported student events and initiatives
- Facilitated communication between students and university administration
- Collaborated with other council members to address student issues and improve campus life

PUBLICATIONS

Oyedele, E. O. (2023). *Climate-Related Crustal Loading Deformation around Lake Mead, Nevada-Arizona, USA* [Master's thesis, Bowling Green State University]. OhioLINK Electronic Theses and Dissertations Center. http://rave.ohiolink.edu/etdc/view?acc_num=bgosu167254851731803

Nworie, C.D., Chidiebere, A.C., and **Oyedele, E.O.** (2021). Geological and Petrophysical Evaluation of Afikpo Sandstone in Afikpo Sub-Basin, Southeastern Nigeria using Integrated Approach. *International Journal of Engineering Science Invention (IJESI)*, 10(5), 07-34.

Oyedele, E.O., Okeke, O.C., and Israel, H.O. (2020). Assessment and Control of Dust and Noise Pollution in Mines and Quarries: A Review. *World Journal of Engineering Research and Technology*, 6(1), Pp 27-46.

Oyedele, E.O., Nnajiolor, V.I., Okeke, O.C., and Ozotta, O.O. (2019). Evaluation of Suitability of Natural Gravels Associated with Nsukka Formation in Owerre-Ezukala (Awka Area), Southeastern Nigeria as Aggregates for Highway Pavement. *The International Journal of Engineering and Science (IJES)*, 8(11), Pp 32-39.

Oyedele, E.O., Okeke, O.C., and Dike, E.C. (2018). Evaluation of Swelling and Slaking Characteristics of Shales from Okigwe Area, Southeastern Nigeria. *Journal of Scientific and Engineering Research*, 5(10), 222-230.

ABSTRACTS AND PRESENTATIONS

Oyedele, E.O., and Werth, S. (2024). Assessing the Impact of Anthropogenic Drought on Groundwater Storage in the Colorado River Basin. *GSA Connects 2024 Abstracts*. Oral presentation at the *GSA Connects 2024 Meeting*, Anaheim, California.

Oyedele, E.O., Khorrami, M., Werth, S., Fu, Y., and Shirzaei, M. (2024). Disappearing of Lake Powell: Clues and Remedies from Integrated Analysis of InSAR Deformation and Climate Data. *GEOINT Abstracts*. Poster presentation at the United States Geospatial Intelligence Foundation GEOINT 2024 Symposium, Kissimmee, Florida.

Oyedele, E.O., and Werth, S. (2024). Assessing Colorado River Basin Groundwater Storage Changes during Recent Drought: Implications for Effective Water Management. *GPSS Abstracts*. Oral presentation at the 40th Graduate Research Symposium, Virginia Tech, Blacksburg, Virginia.

Oyedele, E.O., and Werth, S. (2024). Estimating Groundwater Storage Changes in The Colorado River Basin - Impact of Recent Drought and Implications for Water Management. *GSRs Abstracts*. Oral presentation at the 29th Annual Geoscience Student Research Symposium, Virginia Tech, Blacksburg, Virginia.

Oyedele, E.O., and Werth, S. (2023). Colorado River Basin's Groundwater Storage Declines Without Recovery During Recent Droughts. *AGU Fall Meeting Abstracts*. Oral presentation at the *American Geophysical Union, Fall Meeting*, San Francisco, California.

Oyedele, E.O., Larour, E., Buzzanga, B., Bato, M.G., and Lundgren, P. (2023). Land Motion and Sea Level Change Using ARIA GUNW Products: A Case Study in Long Beach, California. *AGU Fall Meeting Abstracts*. Poster presentation at the *American Geophysical Union, Fall Meeting*, San Francisco, California.

Oyedele, E.O., Fu, Y., and Martens, H. (2022). Crustal Deformation around Lake Mead, Nevada-Arizona due to Current Drought of 2022. *AGU Fall Meeting Abstracts*. Poster presentation at the *American Geophysical Union, Fall Meeting*, Chicago, Illinois.

Oyedele, E.O., Fu, Y., and Martens, H. (2022). Hydrological loading deformation around Lake Mead, Nevada-Arizona, USA. Poster presentation at the *2022 SAGE/GAGE Workshop*, Pittsburgh, Pennsylvania.

Oyedele, E.O., Fu, Y., and Martens, H. (2022). Crustal Deformation around Lake Mead, Nevada-Arizona due to Current Drought of 2022. *GSA Connects 2022 Abstracts*. Poster presentation at the *GSA Connects 2022 Meeting*, Denver, Colorado.

Oyedele, E.O., Fu, Y., and Martens, H., Doyle, B., and Xue, L. (2021). Response of Crustal Deformation in Lake Mead due to Current Drought of 2021. *AGU Fall Meeting Abstracts*, G15C-09. Poster presentation at the *American Geophysical Union, Fall Meeting*, New Orleans, Louisiana.

Oyedele, E.O., Nnajiolor, V.I., and Okeke, O.C. (2019). Evaluation of Suitability of Natural Gravels Associated with Nsukka Formation in Owerre-Ezukala (Awka Area), Southeastern Nigeria as Aggregates for Highway Pavement. Oral presentation at the *Nigerian Mining and Geosciences Society 55th Annual International Conference and Exhibitions*, Enugu State, Nigeria

Oyedele, E.O. (2019). Integrated Sequence Stratigraphic Interpretation of "Van" Field, Offshore Niger Delta, Nigeria. Oral presentation at the *2019 Society of Petroleum Engineers Nigeria Council STSE*, Osun State, Nigeria.

Onyekuru, S.O., Onyedrie, N.K, Opara, K.D. Njoku, I.O., Nwigbo, U., and **Oyedele, E.O.** (2018). Integrated Sequence Stratigraphic Analysis and Interpretation of "N" Field, Offshore Niger Delta. Oral presentation at the *National Association of Petroleum Explorationists 2018 Annual International Conference*, Lagos State, Nigeria.

Oyedele, E.O., Onyekuru, S.O., and Njoku, I.O. (2018). 3D Seismic Interpretation and Petrophysical Evaluation of "Esthyl" Field, Offshore Niger Delta; Implications for Hydrocarbon Prospectivity. Oral presentation at the *9th NAPE-NMGS Mini-Conference*, Delta State, Nigeria.

HONORS AND AWARDS

- William Averette Anderson (Bill Anderson) Fund Fellowship 10/2024
- Association for Women Geoscientists (AWG Sand Student Research Presentation Travel Award 09/2024
- Geological Society of America (GSA) E-an Zen Geoscience Outreach Grant 09/2024
- National Association of Black Geoscientists (NABG) Scholarship Award 09/2024
- United States Geospatial Intelligence Foundation (USGIF) Leidos Scholarship for AI/ML Advancement 08/2024
- SEG/David W. Worthington Scholarship, Society of Exploration Geophysicists (SEG) 08/2024
- Geological Society of America (GSA) On To the Future (OTF) Award 06/2024
- Virginia Tech Graduate Student Travel Fund Program (TFP) Award 05/2024
- Second Best Poster, United States Geospatial Intelligence Foundation (USGIF) GEOINT Symposium 05/2024
- Spring 2024 Art and Photo Contest: Second Place, Virginia Tech Graduate School 05/2024
- Most Dynamic Multimedia Project Award, AGU Voices for Science 04/2024
- American Geophysical Union (AGU) - Voices for Science Award 04/2024
- University Corporation for Atmospheric Research (UCAR) Next Generation Fellowship 10/2023
- United States Geospatial Intelligence Foundation (USGIF) Doctoral Scholarship 08/2023
- 2022 Authors and Artists Honor, Friends of the University Libraries, Bowling Green State University 11/2022
- Geology Graduate Student Service Award, Bowling Green State University 04/2022
- Shanklin Colloquium: Paper Presentation First Place, Bowling Green State University 04/2022
- Recipient, i-Scholar Initiative Scholarship 09/2019
- Second Best Paper, 9th NAPE/NMGS Mini-Conference 08/2018
- Icon of Leadership, Federal University of Technology Owerri 07/2015
- Miss Geology, Federal University of Technology Owerri 09/2014

ONGOING COLLABORATIONS

- Within Virginia Tech: Earth Observation and Innovation Laboratory Since 2023
- External: NASA Jet Propulsion Laboratory (Sea-Level Change Team) Since 2023
- External: NSF National Center for Atmospheric Research - Research Applications Laboratory Since 2023

WORKSHOPS AND TRAINING

- UCAR/NCAR Equity and Inclusion (UNEION) Training 07/2024
- Science Policy, University Corporation for Atmospheric Research (UCAR), Next Generation Fellowship Retreat 06/2024
- Noah-MP International Annual Users' Workshop 06/2024
- Create Deepfake Satellite Imagery with Generative AI, GEOINT Symposium 05/2024
- Using AI to Quickly Identify Damage After Severe Weather Events, GEOINT Symposium 05/2024
- Wideband Radar Imaging (ISAR and SAR) ... Under the Hood, GEOINT Symposium 05/2024
- The Next SAR Revolution: The Natural SAR Image in an Easy-to-Use Form, GEOINT Symposium 05/2024
- American Geophysical Union's (AGU) Voices for Science Workshop 04/2024
- Pressure Seafloor Geodesy Workshop 04/2023
- NSF SAGE/GAGE Community Science Workshop 03/2023
- InSAR Processing and Theory (GMTSAR), UNAVCO 07/2022
- Spatial Literacy (SPLIT) Geoscience, Bowling Green State University 05/2022
- H. Nasr El-Din Summer Internship, Arab Oil & Gas Academy 07/2020
- Volumetrics and Economics of Oil and Gas Industry, NAPE 07/2020
- PSENSE Certificate, Poise Graduate Finishing Academy 12/2019
- Energy Transition Innovation towards a Low-Carbon Future, IFP School 08/2019
- Sequence Stratigraphy, Federal University of Technology Owerri Students' Chapter 08/2018
- Petroleum Systems, 9th NAPE/NMGS Mini-Conference 06/2018

PROFESSIONAL AFFILIATIONS

- Member, Association for Women Geoscientists (AWG) Since 2024
- Member, United States Geospatial Intelligence Foundation (USGIF) Since 2023
- Member, American Institute of Professional Geologists (AIPG) Since 2022
- Member, Geological Society of America (GSA) Since 2022
- Member, American Geophysical Union (AGU) Since 2021
- Member, National Association of Black Geoscientists (NABG) Since 2021
- Member, EarthScope Community Since 2021
- Member, American Association of Petroleum Geologists (AAPG) Since 2018
- Member, Society of Petroleum Engineers (SPE) Since 2018
- Member, Nigerian Association of Petroleum Explorationists (NAPE) Since 2017
- Member, Nigerian Mining and Geosciences (NMGS) Since 2017

PROFESSIONAL VOLUNTEER ACTIVITIES

Scientific Reviewer/Judge

- Judge, Geological Society of America (GSA) Connects 2024 Hydrogeology Division Student Poster Session 09/2024
- Judge, 43rd Annual Technical Conference of the National Association of Black Geoscientists (NABG) 09/2024
- Evaluator, 2024 NSF NCAR, UCAR, & UCP Summer Student Research Poster Symposium 08/2024
- Reviewer, Green Schools Conference (GSC) 2025 Proposals 07/2024
- Reviewer, 2024 Virginia Governor's School for Agriculture (VGSA) Research Symposium 07/2024
- Reviewer, Thermo Fisher Scientific Junior Innovators Challenge, Society for Science 06/2024
- Judge, Annual Dennis Dean Undergraduate Research & Creative Scholarship Conference 04/2024
- Reviewer, Outstanding Student Paper Award (OSPA), American Geophysical Union (AGU) Fall Meeting 12/2023

Volunteering

- Pen Pal Volunteer, Letters to a Pre-Scientist 09/2024 - Present
- Volunteer, Virginia Tech - Geosciences Department's Booth at the Geological Society of America (GSA) Connects 2024 09/2024
- Volunteer, National Center for Atmospheric Research (NCAR) Explorer Lecture Series 07/2024
- Volunteer, National Center for Atmospheric Research (NCAR) Booth at the Boulder Pride Event 06/2024
- Student Assistant, United States Geospatial Intelligence Foundation (USGIF) GEOINT Symposium 05/2024
- Coordinating Committee Member, Virginia Tech - Geosciences Student Research Symposium (GSRS) 03/2024
- HIRS Lab representative, Virginia Tech Geosciences - Undergraduate Research Information Session (URIS) 03/2024
- Student Volunteer, American Geophysical Union (AGU) Fall Meeting 12/2023
- Student Volunteer, American Geophysical Union (AGU) Fall Meeting 12/2022
- Student Volunteer, Geological Society of America (GSA) Connects 10/2022

SCIENCE OUTREACH ACTIVITIES

Science on Tap - New River Valley

Science Outreach Coordinator

Blacksburg, Virginia

05/2024 - Present

- Collaborate with a team to organize monthly science outreach talks at a local brewery.
- Recruit speakers from Virginia Tech and local community
- Arrange hour-long, informal presentations that are accessible to a general audience
- Showcase a variety of research topics and specialists in each session.

American Geophysical Union (AGU)

Voices for Science Fellow

04/2024 - Present

- Organize and participate in various community events, engaging the public with interactive science demonstrations and educational activities.
- Develop and implement outreach strategies to connect with diverse audiences, including underrepresented communities in STEM.
- Produce science content for social media platforms, and newsletters to reach a broader audience and promote scientific literacy.

- Collaborate with other science communicators and professionals to share best practices and improve outreach efforts.
- Participate in training sessions and workshops to enhance skills in public speaking, science writing, and media engagement.

Virginia Tech - Hokie for a Day Expo for 5th Graders

Blacksburg, Virginia

Science Outreach Exhibitor

09/2024

- Organized and led an interactive exhibit to demonstrate the science behind tornado formation using "Tornado in a Bottle" experiments to about 60 fifth-grade students from Belle Heth Elementary School in Radford, VA.
- Developed hands-on learning stations where students created their own tornado bottles, encouraging engagement and curiosity in meteorology.
- Designed educational posters and trivia about tornadoes, featuring easy-to-understand visuals and fun facts to effectively communicate weather science to young audiences.
- Fostered interactive learning through direct engagement with students, helping to increase their understanding of tornado dynamics and safety.

43rd Annual Technical Conference of the National Association of Black Geoscientists (NABG)

Atlanta, Georgia

Invited Speaker

09/2024

- Delivered a presentation on "Effective Science Communication: Bridging the Gap Between Scientists and the Public".
- Educated the conference participants and highlighted the importance of clear communication in science, why it matters and best practices in science communication.
- Led hands-on activities and team-based exercises to equip attendees with practical science communication techniques.

Boulder Pride Event

Boulder, Colorado

Science Outreach Volunteer/Exhibitor

06/2024

- Collaborated with the SciEd team from National Center for Atmospheric Research (NCAR) to ensure successful and engaging demonstrations
- Engaged with event attendees, providing information about atmospheric science and NCAR's work.
- Assisted with science demonstrations including tornadoes in a bottle - explained the principles of vortex formation, air pressure with plunger tops - demonstrated the effects of air pressure, and magnet activity related to sunspots - illustrated the relationship between magnetism and solar activity.

Roanoke Valley Mineral and Gem Society Meeting

Roanoke, Virginia

Invited Speaker

05/2024

- Presented my research on the application of satellite observations for analyzing groundwater dynamics in the western USA to an audience of amateur geologists.
- Provided educational insights into remote sensing technologies and their role in understanding groundwater variability and management.
- Engaged the audience with accessible explanations of complex geoscience topics, fostering a deeper appreciation of groundwater science and satellite data applications.

Virginia Tech - Hokie for a Day Expo for 5th Graders

Blacksburg, Virginia

Science Outreach Exhibitor

03/2024

- Collaborated with a team of Communicating Science graduate students to present environmental science research to approximately 60 fifth-grade students from Albert Harris Elementary School in Martinsville, VA.
- Developed and led hands-on activities that taught students about environmental hazards, such as soil erosion, and demonstrated methods of erosion prevention and their impact on groundwater systems.
- Conducted a live simulation using two soil models, one with vegetation and one without, to visually show the difference in runoff and water quality, fostering a deeper understanding of the relationship between land management and water conservation.
- Engaged students in interactive discussions on how nature provides essential ecosystem services, linking environmental stewardship to real-world applications.

Society of Petroleum Engineers: Young Professionals

Lagos, Nigeria

Ambassador, Ambassador Lecture Program (ALP)

10/2019 - 12/2020

- Organized ALPs in Schools in Lagos State, Nigeria.
- Visited Universities and Secondary Schools to disseminate information about the oil and gas industry.
- Shared personal experiences in the oil and gas industry to encourage the next generation.