SRINIDHI LOKESH

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RESEARCH OVERVIEW

As an environmental engineer, my research advances the discovery, characterization, and transformation of emerging contaminants to strengthen the resilience of water and infrastructure systems affected by wildfires in natural ecosystems and at the wildland-urban interface. I focus on redox-mediated degradation pathways of persistent pollutants, including PFAS, halogenated organics, and PAHs, while developing and applying advanced analytical approaches such as high-resolution mass spectrometry (HRMS) and chemical tagging. My current work integrates combustion experiments with post-fire field studies to identify and track novel disinfection byproduct (DBP) precursors, PFAS, and other organohalogen emissions across complex environmental matrices. Ultimately, my goal is to inform mitigation strategies and support robust treatment technologies for climate-driven disturbances.

EDUCATION

2019–2023 **Ph.D. in Environmental Engineering,** University of Nevada Reno, USA
Dissertation Title: Reductive Dehalogenation by Aqueous Biochars
Committee: Dr. Yu Yang (Chair), Dr. David Hanigan, Dr. Eric Marchand, Dr. Charles Coronella, Dr. Paul Verburg

2016–2018 **M.S in Environmental Engineering,** New York University, USA

2011–2015 **Bachelor of Technology in Mining Engineering,** National Institute of Technology Karnataka, Surathkal, India

ACADEMIC EXPERIENCE

2025–Present **Research Scientist,** Civil & Environmental Engineering, University of Nevada Reno, USA
Advisor: Dr. David Hanigan

- Investigate the leaching behavior of disinfection byproduct (DBP) precursors from wildland-urban interface (WUI) fire residues and their transport into water systems.
- Apply high-resolution mass spectrometry-based non-target analysis to identify novel DBP precursors from WUI fires and develop treatment strategies to mitigate their risks to drinking water.

2023–2025 **Postdoctoral Scholar,** Soil & Crop Sciences, Colorado State University, USA
Advisor: Dr. Thomas Borch

- Develop and optimize extraction methods for chemical analysis of filters used to collect emissions from burning structural materials.
- Apply ultra high-resolution mass spectrometry with both targeted and non-targeted approaches to identify and quantify pollutants released during structural fires.

2019–2023 **Graduate Research Assistant,** Civil & Environmental Engineering, University of Nevada Reno, USA

Advisor: Dr. Yu Yang

- Explored the redox-mediated degradation of pollutants by aqueous-phase biochar, emphasizing the role of semiquinone and quinoidic moieties in dehalogenation processes.
- Developed non-target high-resolution mass spectrometry workflows, including quinone-tagging and Fe-lignin complex analysis, to characterize reactive species in biochar.
- Investigated the environmental mobility and interactions of 6PPD-quinone leached from rubberized asphalt concrete using advanced analytical techniques.

2016–2018 **Graduate Research Assistant,** Civil & Urban Engineering, New York University, USA

Advisor: Dr. Andrea Silverman

- Determined the mechanisms and rates of inactivation of human viruses, bacteriophages, and bacteria in natural waters and wastewaters through experimental and modeling approaches.

2016–2018 **Undergraduate Research Assistant,** Karnataka State Remote Sensing Application Centre (KSRSAC), India

Advisor: Dr. B.P. Lakshmikantha

- Developed and applied numerical and machine learning models to predict ground vibrations and assess excavation safety in geotechnical and mining operations.
- Integrated physics-based simulations with data-driven approaches to reduce failure risks and improve decision-making in mining projects.

GRANT WRITING

Bold: Awarded

2025 **1. Harnessing The Data Revolution for Fire Science (HDRFS)- Data Analytics Research Internship ($4,750)**

PI: Dr. Srinidhi Lokesh (UNR)

Sponsor: Nevada Established Program to Stimulate Competitive Research (EPSCoR)

Role: Wrote and revised the full proposal

2024 **2. Development of Non-Targeted Analysis Methods for Risk Assessment of Produced Water Using Solid Phase Microextraction (SPME) and Liquid Chromatography Coupled with High-Resolution Mass Spectrometry (HRMS) ($550,000)**

PI: Dr. Thomas Borch (CSU)

Sponsor: ExxonMobil

Role: Co-wrote and revised the proposal.

3. Fire impacts on seed germination and seedling establishment ($1,150,048) (Competitive Rating)

PI: Dr. William Bjorn (CSU); Co-PIs: Dr. Mike Wilkins (CSU), and Dr. Thomas Borch (CSU)

Sponsor: National Science Foundation (NSF)

Role: Co-wrote and revised the proposal.

4. Rapid Determination and Prediction of Physical-Chemical Properties of PFAS Impacting their Fate and Transport using Microfluidics and Machine Learning (CSU Share: $156,913)

Co-wrote proposal with PI: Dr. Alexandridis Paschalis (UB); Co-PIs: Dr. Thomas Borch (CSU)

Sponsor: Strategic Environmental Research and Development Program (SERDP)

Role: Co-wrote and revised the proposal.

5. **Contribution of micro-predators to necromass production and its transformation ($249,949, Colorado State University Share: $113,099)**

PI: Dr. Edouard Jurkevitch (Hebrew University of Jerusalem); Co-PIs: Dr. Benny Chefetz (Hebrew University of Jerusalem), and Dr. Thomas Borch (CSU)

Sponsor: US-Israel Binational Science Foundation Research Grant (BSF)

Role: Co-wrote and revised the proposal.

6. Sources and Sinks of Fe in Future Hypoxic Oceans ($140,000) [Honorable mention for being in Top 15. Top 8 proposals funded]

PI: Srinidhi Lokesh (UNR); Co-PI: Dr. Rene Boiteau (OSU, Currently at UMN)

Sponsor: National Oceanic and Atmospheric Administration (NOAA)

Role: Wrote and revised the full proposal

2022 **7.** **Supplementary Funding to Collaborate with Europe Research Council Grantee (Dr. Andrew Tanentzap at University of Cambridge) ($8,986)**

PI: Dr. Yu Yang (UNR)

Sponsor: European Research Council

Role: Co-wrote and revised the proposal.

8. **Collaborative Research: Sustainable management of human organic pollutant exposure (HOPE) at formerly used defense sites in the changing Arctic ($1,568,000)**

PI: Dr. Yu Yang (UNR); Co-PIs: Dr. Frank von Hippel (UA), Dr. Jennifer Schmidt (UAA) (Co-PI), Dr. Tobias Schwoerer (UAF), Chris Price (Qawalangin Tribe of Unalaska).

Sponsor: National Science Foundation (NSF)

Role: Drafted and revised the proposal

9. **Collaborative Research: Identification of lignin-derived ligands associating with iron ($450,000)**

PI: Dr. Yu Yang (UNR); Co-PI: Dr. Rene Boiteau (OSU, currently at UMN)

Sponsor: National Science Foundation (NSF)

Role: Drafted the proposal

2021 **10.** **Screening survey for emerging toxics in leachate of rubberized asphalt concrete and their critical environmental processes. ($32,125)**

PI: Elie Hajj (UNR), Co-PI: Dr. Yu Yang (UNR)

Sponsor: Granite Construction, Inc.

Role: Led weekly update meetings and wrote the final project report

HONORS & AWARDS

2025 **Poster Competition- Honorable Mention**

Gordon Research Conference

Featured Journal Cover Article

Soil Systems. Volume 9, Issue 1

2023 **Featured Journal Cover Article**
Environmental Science & Technology. Volume 57, Issue 38

Student Poster Competition- 2nd place ($300)
Nevada Water Environment Association Annual Conference

2022 **Student Travel Grant ($500)**
University of Nevada Reno

2021 **ACS ENVR Certificate of Merit**
American Chemical Society

Nevada WateReuse Association Scholarship ($1,000)
Nevada WateReuse Association

2016 **New York University Graduate Scholarship ($10,000)**
New York University

2013 **Best Young Scholar**
Minamata International Symposium on Environmental and Energy Technology 2013 (MISSION 2013), Kumamoto, Japan

2010 **National Talent Search Examination Scholar**
National Council of Educational Research and Training, Government of India.

2009 **National Science Olympiad**
Government of India

PUBLICATIONS

†Indicates equal contribution

2026 15. Hickenbottom, K., **Lokesh, S.**, Pagilla, K., & Hanigan, D. "Wildfire Temperature and Oxygen Availability Alter Disinfection Byproduct Precursors in Laboratory and Weathered Forest Soils." *ACS ES&T Water*. 2026, 6(7), 4448-4459.

14. **Lokesh, S.**, Borch, T., VanderRoest, J., Fettrow, S., & Hanigan, D. "Enrichment of Disinfection Byproduct Precursors in Fire-Affected Soils from the 2025 Eaton Fire in Los Angeles, California." *ACS ES&T Water*. 2026, 6(7), 4254-4266.

13. Numan, T., Shahriar, A., **Lokesh, S.**, Timilsina, A., Basyal, S., Raeofy, Y., Zhao, Q., Richardson, J.A., Poulson, S.R., Samburova, V., & Yang, Y. "Decoupled mobilization of organic carbon and nitrogen in aged wildfire ashes." *Chemosphere*. 2026, 405, 144960.

12. Timilsina, A., **Lokesh, S.**, Shahriar, A., Basyal, S., Stincone, P., Schramm, T., Berndt, A., Dewey, C., Boiteau, R., Petras, D., & Yang, Y. "Unveiling Redox-Active Quinones in Pyrogenic Carbon by Nontargeted Metabolomics and Dual Chemical Tagging." *Environmental Science & Technology*. 2026, 60(20), 14589-14600.

11. Hickenbottom, K., Hanson, B., **Lokesh, S.**, Pagilla, K., Rosario-Ortiz, F., & Hanigan, D. "Combustion Temperature and Molecular Weight Fractionation Provide Insights into Soil-Derived Wildfire-impacted Disinfection Byproduct Precursors." *ACS ES&T Water*. 2026, 6(5), 2815-2826.

10. **Lokesh, S.**, Jathan, Y., Marchand, E.A., & Hanigan, D. "Recent improvements in understanding the impacts of wildfire on disinfection byproduct formation potential." *Current Opinion in Environmental Science & Health*. 2026, 49, 100700.

9. Numan, T., Shahriar, A., **Lokesh, S.**, Timilsina, A., Basyal, S., Raeofy, Y., Poulson, S.R., Samburova, V., & Yang, Y. "Mobility of Nitrogen in Ashes and Soils Impacted by Wildfires in northern California and Nevada." *Environ. Sci.: Processes Impacts.* 2026, 28(1), 196-203.

2025 8. Numan, T., **Lokesh, S.**, Shahriar, A., Timilsina, A., Lard, M.L., Clark, J., Raeofy, Y., Zhao, Q., Poulson, S.R., Verburg, P.S., Richardson, J.A., Cook, R.L., Samburova, V., & Yang, Y. "Post-Wildfire Mobilization of Organic Carbon." *Soil Systems.* 2025, 9(1), 11. [Featured on Journal Cover]

2024 7. Timilsina, A., **Lokesh, S.**, Shahriar, A., Numan, T., Schramm, T., Stincone, P., Nyarko, L.K., Dewey, C., Boiteau, C., Petras, D., & Yang, Y. "Identifying Quinones in complex Aqueous Environmental Media (Biochar Extracts) through Tagging with Cysteine and Cysteine-Contained Peptides and High-Resolution Mass Spectrometry Analysis." *Environmental Science & Technology.* 2024, 58(37), 16432–16443.

6. Shahriar, A., **Lokesh, S.**, Timilsina, A., Numan, T., Schramm, T., Stincone, P., Nyarko, L., Dewey, C., Petras, D., Boiteau, R., & Yang, Y. "High-Resolution Tandem Mass Spectrometry-Based Analysis of Model Lignin-Iron Complexes: Novel Pipeline and Complex Structures." *Environmental Science & Technology.* 2024, *58* (34), 15090-15099.

2023 5. **Lokesh, S.**, Lard, M.L., Cook, R.L, & Yang Y. Critical Role of Semiquinones in Reductive Dehalogenation. *Environmental Science & Technology.* 2023, 54, 14218–14225. [Featured on Journal Cover]

4. **Lokesh, S.**, Arunthavabalan, S., Hajj, E.Y., Hitti, E., & Yang, Y. "Investigation of 6PPD-quinone in rubberized asphalt concrete mixtures." *ACS Environmental Au.* 2023, 3(6), 336–341.

3. †Timilsina, A., †**Lokesh, S.**, Shahriar, A., Numan, T., & Yang, Y. "Quantification of quinones in environmental media by chemical tagging with cysteine-containing peptides coupled to size exclusionary separation." *Analytical Chemistry.* 2023, 95(34). 12575–12579.

2022 2. Dorner, M., **Lokesh, S.**, Yang, Y., & Behrens, S. "Biochar-mediated abiotic and biotic degradation of halogenated organic contaminants-a review." *Science of the Total Environment.* 2022, 852, 158381.

2020 1. **Lokesh, S.**, Juhee, K., Zhou, Y.W., Wu, D.P., Pan, B., Wang, X.L., Behrens, S., Huang, C.H., & Yang, Y. "Anaerobic dehalogenation by reduced aqueous biochars." *Environmental Science & Technology*. 54, 15142–15150.

SUBMITTED OR IN PREPARATION

†Indicates equal contribution

1. **Lokesh, S.**, Ridgway, K., Helfrich, A., Cast, L., L'Orange, C., Jathar, S., & Borch, T. "Assessing Emissions from Wildland-Urban Interface Fires: Targeted PAH Contaminants from Structural Materials." (In Review, ES&T)
2. **Lokesh, S.**, Ridgway, K., Helfrich, A., Cast, L., L'Orange, C., Jathar, S., & Borch, T. "Emissions of Per- and Polyfluoroalkyl Substances (PFAS) from Household Material Combustion: Implications for Risk Assessment of Urban Fires." (Under Revision, ES&T)
3. **Lokesh, S.**, Ridgway, K., Helfrich, A., Cast, L., L'Orange, C., Jathar, S., & Borch, T. "Phase-Resolved Emissions of PFAS from Household Material Combustion: Insights into Partitioning and Combustion Dynamics." (In Preparation, Lab work completed)
4. **Lokesh, S.**, Ridgway, K., Helfrich, A., Cast, L., L'Orange, C., Jathar, S., & Borch, T. "Non-Target analysis of PAH released from burning structural materials using 21T FT-ICR-MS." (In Preparation, Lab work complete)

5. Shahriar, A., **Lokesh, S.**, Timilsina, A., Numan, T., Schramm, T., Stincone, P., Nyarko, L., Dewey, C., Petras, D., & Boiteau, R. "Microbial lignin degradation generates iron-binding ligands mediating soil carbon–mineral stabilization." (In Review, Nature Communications)
6. Radakovich A, Timilsina A, **Lokesh S**, Shahriar A, Demitrack ZE, Li Y, Albee N, Contreras E, Schwoerer T, Schmidt J, Li L, Tanentzap A, Hippel FV, Yang Y. "Identification of priority organofluorine compounds at Arctic formerly used defense sites." (In Review, ES&T)

INVITED TALKS

2025 1. "Emissions of PFAS and PAHs from Controlled Structural Burns and Formation of PFAS and DBPs Following Los Angeles Wildfires." Seminar Series, University of Nevada Reno, NV, USA.

2. "Structural Fire Emissions (PAHs, PFAS) from Laboratory Burns and DBP, PFAS Formation after Los Angeles Wildfires." RemTEC and Emerging Contaminants Summit, 2025, Denver, CO, USA. (Platform Presenter)

3. "Assessment of Disinfection Byproduct Precursors in Drinking Water Following Urban Fires." Eaton Fire Conference, 2025, Chapman University, Los Angeles, CA, USA.

2024 4. "Fate of 6PPD-Quinone at asphalt–water interface." RemTEC and Emerging Contaminants Summit, 2024, Denver, CO, USA. (Platform Presenter)

CONFERENCE PRESENTATIONS

2026 1. **Lokesh, S.**, Borch, T., VanderRoest, J., Fettrow, S., & Hanigan, D. "Structural Fire Emissions (PAHs, PFAS) from Laboratory Burns and DBP Formation after Los Angeles Wildfire." March 2026, 271st ACS National Meeting, Atlanta, GA, USA.

2024 2. Shahriar, A., Timilsina, A., Voggenreiter, E., Mollenkopf, M., **Lokesh, S.**, Radakovich, A., Numan, T., Joshi, P., Stincone, P., Petras, D., Kappler, A., & Yang, Y. "Reactive organic carbon governing the ecosystem functions of permafrost soil and their response to climate change." 2024 Goldschmidt Conference, Chicago, IL, USA.

2023 3. Timilsina, A., **Lokesh, S.**, Shahriar, A., Numan, T., Stincone, P., Petras, D., & Yang, Y. "Identifying Quinones in Complex Environmental Media through Tagging with Cysteine and Cysteine-Contained Peptides and High-Resolution Mass Spectrometry Analysis." October 2023, ASA, CSSA, SSSA, International Annual Meeting, St. Louis, MO, USA.

4. Shahriar, A., **Lokesh, S.**, Timilsina, A., Numan, T., Nyarko, L., Dewey, C., Stincone, P., Petras, D., Boiteau, R., & Yang, Y. "Identification of Lignin-Derived Organic Iron (Fe) Ligands By Fe Isotopologue Analysis Coupled with Metabolomics." October 2023, ASA, CSSA, SSSA, International Annual Meeting, St. Louis, MO, USA.

5. Shahriar, A., Timilsina, A., Voggenreiter, E., Mollenkopf, M., **Lokesh, S.**, Radakovich, A., Numan, T., Joshi, P., Stincone, P., Petras, D., Kappler, A., & Yang, Y. "Identification of Reactive Organic Carbon in Permafrost Soils Along a Thaw Gradient." October 2023, ASA, CSSA, SSSA, International Annual Meeting, St. Louis, MO, USA.

6. Numan, T., **Lokesh, S.**, Timilsina, A., Shahriar, A., Lard, M.L., Clark, J., Zhao, Q., Richardson, J.A., Poulson, S., Cook, R.L., Samburova, V., & Yang, Y. "Post-wildfire mobilization of organic carbon." October 2023, ASA, CSSA, SSSA, International Annual Meeting, St. Louis, MO, USA.

7. Shahriar, A., **Lokesh, S.**, Timilsina, A., Numan, T., Nyarko, L., Dewey, C., Boiteau, R., & Yang, Y. "Identification of lignin-derived organic iron (Fe) ligands by Fe isotopologue analysis coupled with metabolomics." August 2023, 266th ACS National Meeting, San Francisco, CA, USA.

8. Timilsina, A., **Lokesh, S.**, Shahriar, A., Numan, T., & Yang, Y. "Tagging Quinones with cysteine and cysteine-contained peptides for their identification and quantification in complex environmental media (biochar)." August 2023, 266th ACS National Meeting, San Francisco, CA, USA.
9. Yang, Y., **Lokesh, S.**, Arunthavabalan, S., Hajj, E.Y., & Hitti, E. "Fate of 6PPD-quinone at asphalt concrete-water interface." August 2023, 266th ACS National Meeting, San Francisco, CA, USA.
10. Yang, Y., **Lokesh, S.**, Shahriar, A., & Numan, T. "Coupling thermodynamics and kinetics for the redox and complexation reactions between iron and quinone/phenol." August 2023, 266th ACS National Meeting, San Francisco, CA, USA.

2022

11. **Lokesh, S.**, & Yang, Y. "Recyclability and reactivity of aqueous biochar in the dehalogenation of triclosan." March 2022, 263rd ACS National Meeting, San Diego, CA, USA.
12. Hajj, E., Yang, Y., **Lokesh, S.**, Arunthavabalan, S. "Fate of 6PPD-quinone at asphalt–water interface." CalRecycle 2022 California Tire Conference, Sacramento, CA, USA.
13. Hajj, E., Yang, Y., **Lokesh, S.**, & Arunthavabalan, S. "Fate of 6PPD-quinone at asphalt–water interface." 2022 CalCIMA Education Conference, La Jolla, CA, USA.
14. Numan, T., **Lokesh, S.**, & Yang, Y. "Engineering Application of Biochars." 2022 IAC Pacific Region Summit. Intertribal Agriculture Council. Virtual.
15. Yang, Y., **Lokesh, S.**, Shahriar, A., Numan, T. "Coupling thermodynamics and kinetics for the redox and complexation reactions between iron and quinone/phenol." January 2022, 263rd American Chemical Society Meeting. San Diego, USA.

2021

16. Yang Y, **Lokesh S**. "Critical role of semiquinone in reductive dehalogenation." November 2021, ASA, CSSA, SSSA, International Annual Meeting, Salt Lake City, UT, USA.
17. **Lokesh, S.**, Juhee, K., Zhou, Y.W., Wu, D.P., Pan, B., Wang, X.L., Behrens, S., Huang, C.H., & Yang, Y. "Anaerobic dehalogenation by reduced aqueous biochar." April 2019, 261st ACS National Meeting. Virtual. [ENVR Certificate of Merit- Best first-time presenter]

2013

18. **Lokesh, S.**, Ranganna, G., & Lokesh, K.V. "Studies on Causes and Effects of Landslides and Flash Floods and their Preventive Measures." May 2013, Minamata International Symposium on Environment and Energy Technology (MISSION 2013), Kumamoto, Japan. [Best Young Scholar]

POSTER PRESENTATIONS

**Indicates Mentored Students*

2025

1. **Lokesh, S.**, Borch, T., VanderRoest, J., Fettrow, S., & Hanigan, D. "Changes to Disinfection Byproduct Precursors Leached from Soil Following the Eaton Fire". July 2025, Gordon Research Conference (GRC), Massachusetts, BO, USA. [Honorable Mention]
2. Turzo, P.B.*, Hatinoglu, D., Apul, O.G., Loganathan, S., Hanigan, & **Lokesh, S**. "Breaking Down Forever Chemicals" Factors Governing Granular Activated Carbon Regeneration". October 2025, Graduate Student Symposium, University of Nevada Reno, [2nd Place]

2023

3. Radakovich, A., **Lokesh, S.**, Timilsina, A., & Yang, Y. "Environmental orthogonal reactions for dissolving and tagging pyrogenic carbon." August 2023, 266th ACS National Meeting, San Francisco, CA, USA.
4. **Lokesh, S.**, Arunthavabalan, S., Hajj, E.Y., Hitti, E., & Yang, Y. April 2022. Fate of 6PPD-quinone at rubberized asphalt concrete-water interface. Nevada Water Environment Association Annual Conference, Reno, NV, USA. [2nd Place]

2022

5. **Lokesh, S.**, Arunthavabalan, S., Hajj, E.Y., Hitti, E., & Yang, Y. April 2022. "Fate of 6PPD-quinone at rubberized asphalt concrete-water interface." CEE research symposium, University of Nevada, Reno, NV, USA.
6. **Lokesh, S.**, & Yang, Y. 2022. "Critical Role of Semiquinones in the Reductive Dehalogenation." April 2022, CEE research symposium, University of Nevada, Reno, NV, USA
7. Timilsina, A., **Lokesh, S.**, Shahriar, A., & Yang, & Y. April 2022. "Development of tagging method for identifying quinone in aqueous pyrogenic carbon media." CEE research symposium, University of Nevada, Reno, NV, USA.
8. Numan, T., **Lokesh, S.**, Shahriar, A., & Yang, & Y. April 2022. "Pyrogenic carbon produced during wildfire and impact on watershed functions." CEE research symposium, University of Nevada, Reno, NV, USA.
9. Shahriar, A., **Lokesh, S.**, Boiteau, R., & Yang, & Y. April 2022. "Stability constant of lignin-derived small compounds and structure identification for their complexes with Fe." CEE research symposium, University of Nevada, Reno, NV, USA.
10. **Lokesh, S.**, Arunthavabalan, S., Hajj, E.Y., Hitti, E., & Yang, Y. "Fate of 6PPD-quinone at rubberized asphalt concrete-water interface." April 2022, 17th IWA Leading Edge Conference on Water and Wastewater Technologies, Reno, NV, USA.
11. **Lokesh, S.**, & Yang, Y. 2022. "Critical Role of Semiquinones in the Reductive Dehalogenation." April 2022, 17th IWA Leading Edge Conference on Water and Wastewater Technologies, Reno, NV, USA.
12. **Lokesh, S.**, Arunthavabalan, S., Hajj, E.Y., Hitti, E., & Yang, Y. "Fate of 6PPD-quinone at rubberized asphalt concrete-water interface." January 2022, Reunited in water 2022 NWEA annual conference & exposition, Las Vegas, NV, USA.
13. **Lokesh, S.**, & Yang, Y. 2022. "Critical Role of Semiquinones in the Reductive Dehalogenation." January 2022, Reunited in water 2022 NWEA annual conference & exposition, Las Vegas, NV, USA.
14. Numan, T., **Lokesh, S.**, Shahriar, A., & Yang, Y. "Pyrogenic carbon produced during wildfire and impact on watershed functions." January 2022, Reunited in water 2022 NWEA annual conference & exposition, Las Vegas, NV, USA.
15. Shahriar, A., **Lokesh, S.**, & Yang, Y. "Stability constant of lignin-derived small compounds and structure identification for their complexes with Fe." January 2022, Reunited in water 2022 NWEA annual conference & exposition, Las Vegas, NV, USA.

TEACHING

Spring 2025 (n= 24) & Fall 2025 (n= 80) (Undergraduate Level)

Teaching Instructor of Record, University of Nevada Reno

CEE 204 — Natural and Engineered Environmental Systems

Fundamental concepts related to natural and engineered environmental systems for the control of water and air pollution and the treatment of water, wastewater, hazardous wastes and solid wastes.

Fall 2022 (n=13) & Fall 2024 (n=16) (Graduate/Undergraduate Level)

Teaching Instructor of Record, University of Nevada Reno

CEE 417/617 — Environmental Quality Analysis

Analytical chemistry and microbiology techniques applied to environmental quality assessment of water and soil systems for environmental engineering practice, including data collection, data

analysis, and technical presentation.

Summer 2022

RET Site: Next-generation Clean Energy Sources and Storage Mentor

Mentored two middle school teachers from the Washoe County school district to get trained in working in an environmental engineering laboratory. Helped develop curriculum with the teachers for middle school science class.

Summer 2021

GradFIT Module Developer, University of Nevada Reno

Co-developed and held a MATLAB-based Statistical Analysis workshop for first-generation college students and students from historically underrepresented backgrounds students joining UNR GradFIT Module.

(National Science Foundation Innovation Graduate Education Project)

Fall 2019 & Fall 2020

Teaching Assistant, University of Nevada Reno

CEE 417/617 — Environmental Quality Analysis (Graduate/Undergraduate Level)

Co-taught the laboratory course and developed a video module series to facilitate the learning process of laboratory experiments during the COVID-19 pandemic

Spring 2018

Teaching Assistant, New York University

CE-GY 8283 — Risk Analysis

Held office hours, graded assignments, and managed online Q&A

MENTORING EXPERIENCE

2025–Present	Adesola Adepoju (Ph.D., UNR)
2024–Present	Plabon Islam Turzo (MS & Ph.D., UNR) (Committee Member)
2024–Present	Chelsea Zhao (Ph.D., CSU)
2024–Present	Kerry Miller (Ph.D., Colorado State UNR)
2025–Present	Naomi Gardiner (Undergraduate, UNR)
2025–Present	Ishtiaq Ahmed Jawad (Ph.D., UNR)
2022–2023	Anil Timilsina (Ph.D., currently a postdoctoral researcher at UMN)
2022	Kristina Hadley (Middle School Teacher, Washoe County School District)
2022	Mackenzie Kohler (Middle School Teacher, Washoe County School District)
2021–2023	Abrar Shahriar (Ph.D., UNR, currently a postdoctoral researcher at LLNL)
2021	Joshua Le Grande (Undergraduate, UNR, currently a facility specialist-Parks maintenance, City of Reno)
2021	Valeria Nava (Undergraduate, UNR, currently a Technical Engineer at Covalent Metrology)
2021	Justin Clark (Undergraduate, UNR, currently a civil design engineer at Tetra Tech)
2020–2023	Travis Numan (Ph.D., UNR, currently a project engineer at BE3)

PROFESSIONAL SERVICES

Journal Reviewer (n=9)

Environmental Science & Technology, Earth Science Review, Critical reviews in Environmental Science and Technology, Chemosphere, Science of The Total Environment, Journal of Environmental Quality, Journal of American Water Resources Association, ACS Measurement Science Au, and Water Research.

2026 Co-organizer of a symposium titled “Wildland Urban Interface (WUI) Fire Impacts on Environmental Systems: Integrating Soil, Water, Air, and Public Health Perspectives.” March 2026, 271st ACS National Meeting, Atlanta, GA, USA.

2024 Laboratory Operations Manager, Civil and Environmental Engineering, University of Nevada Reno, USA

Analytical Instruments & Programming Language

Instrumentation & Workflows

LC-Orbitrap, APCI-GC-TOF-MS, TOC, IC, UV-vis spectrometer, HPLC, LC-TQ-MS, LC-TOF-MS, Anaerobic Glove Box, FTIR, Quantachrome Surface Area Analyzer, Lachat, GC-ECD, Sirius, GNPS2, PetroOrg and MZmine

Programming Languages

R, MATLAB, and Python