

Sita Nyame

Hartford, CT 06106 | sita.nyame@gmail.com

LinkedIn: <http://linkedin.com/in/sitanyame>

EDUCATION

Ph.D.	Environmental Engineering, University of Connecticut <i>Dissertation: Severe Weather Impact Risk on the Power System</i>	2025
M.S.E.	Environmental Engineering, University of Connecticut <i>Concentration: Severe Weather Impact Modeling</i>	2024
B.S.E.	Environmental Engineering, University of Connecticut <i>Thesis: Wildfire Ignition Prediction in California</i>	2021
B.A.	Anthropology, University of Connecticut <i>Concentration: Cultural Anthropology</i>	2018

CERTIFICATIONS

Engineer in Training, State of Connecticut (EIT.0013051)	Mar 2023
Teaching English as a Foreign Language (TEFL), CIEE	Sep 2018

PROFESSIONAL EXPERIENCE

UConn Global Affairs **Storrs, CT**
Global Operations Manager *May 2024 - Present*

- Supervising a team of full-time staff and undergraduate students in communication and marketing, and program assessments.
- Spearheading efforts to coordinate local and international delegation visits aimed at initiating and maintaining strategic collaborations with organizations and institutions across the African continent to drive international growth and expansion efforts.
- Managing and optimizing the schedule of the Associate Vice President to improve efficiency, enhance communication, facilitate resource allocation, and contribute to long-term planning.

Global Engagement and Assessment Analyst *Aug 2023 - May 2024*

- Collaborating on comprehensive data gathering using Qualtrics and Terra Dotta to assess the impact of Experiential Global Learning (EGL) programs on students, informing the enhancement of deliberate student experiences and understanding their contribution to student success.
- Supervising undergraduate research assistants (URA) in the proficient reading and organization of collected data, ensuring accuracy in data interpretation, and fostering an environment that encourages collaborative learning and effective teamwork.
- Spearheading efforts to coordinate local and international delegation visits aimed at initiating and managing strategic collaborations with organizations and institutions across the African continent to drive international growth and expansion efforts.

Program Assistant *Aug 2021 - May 2023*

- Automated class selection process using Excel VBA for incoming students, streamlining efficiency and enhancing user experience.
- Collaborated on marketing and event planning initiatives to inform students about opportunities within the Office of Global Affairs' Experiential Global Learning (EGL) department.
- Managed advertising initiatives and maintained website content to ensure it was up-to-date with relevant information, utilizing WordPress (Aurora).

Eversource Energy Center (EEC) **Storrs, CT**
Research Assistant *May 2021 - May 2024*

- Testing feasibility of machine learning models for electrical distribution and transmission outages caused by environmental hazards in the states of Connecticut, Massachusetts and New Hampshire.

- Integrating a mechanistic model into a probabilistic model to increase prediction capabilities of transmission outages in the states of Connecticut, Massachusetts and New Hampshire.
- Developing a machine learning based model to predict wildfire ignition locations in the state of California.

National Renewable Energy Laboratory (NREL)

Boulder, CO

Wind Energy Science Intern

Jun 2023 - Aug 2023

- Created a machine learning model that uses detailed wind loading data from an operational concentrated solar power (CSP) plant to predict static and dynamic wind loading on parabolic trough CSP collectors.
- Identified 27% of all collected wind variables as being most important contributing factors to wind loading seen on parabolic trough CSP collectors.

Independent System Operators New England (ISO-NE)

Holyoke, MA

Advanced Technology Solutions Intern

Jun 2022 - Aug 2022

- Created a machine learning model for transmission damage predictions due to extreme weather events using environmental, structural and domain knowledge.
- Reduced computation time of data compilation model from 4 minutes to 20 seconds for next day forecasting.

INTERNATIONAL AND TEACHING EXPERIENCE

UConn Africana Studies Institute

Storrs, CT

Faculty Affiliate

Nov 2023 - Present

- Collaborate with resident faculty, mentor students, and participate in scholarly activities, enriching the academic environment with diverse perspectives.

UConn Bridge Program

Storrs, CT

Math Tutor

Aug 2023 - May 2024

- Developing tailored learning materials to accommodate diverse learning styles and abilities for students taking Pre-Calculus, Trigonometry, Calculus 1 and Calculus 2.

UConn FinTech and Culture in Ghana

Accra, GH

Program Lead

May 2023 - May 2023

- Organized and facilitated a 10-day experiential learning experience for 21 students to explore culture and many startup FinTech companies in one of the fastest growing economy in Africa.

Teaching Assistant

Dec 2022 - Jan 2023

- Organized and co-facilitated a 10-day experiential learning experience for 20 students to explore culture and many startup FinTech companies in one of the fastest growing economy in Africa.

UConn Department of Civil and Environmental Engineering (CEE)

Storrs, CT

Teaching Assistant

Jan 2022 - Dec 2022

- Supported students through 1-on-1 meetings, group meetings and assignment evaluations to help them better understand class content.

Foreign Trade and Business College

HeChuan, CQ

English Teacher

Oct 2018 - Jul 2019

- Provided instruction for 5 multi-level classes that was consistent with the school's instructional program to ensure that students met and exceeded oral language learning targets.

SERVICE ACTIVITIES

UConn Connects, *Mentor*

Storrs, CT

City of Hartford Greater Hartford Flood Commission, *Board of Director*

Hartford, CT

City of Hartford Greater Hartford Transit District, *Board of Director*

Hartford, CT

The Jacob L. and Lewis Fox Foundation, *Scholarship Committee*

Hartford, CT

Vergnano Institute of Inclusion (VII), *Mentor*

Storrs, CT

Graduate Black Students in STEM, *Treasurer*

Storrs, CT

CEE Antiracism and Equity Action Team, *Committee Member*

Storrs, CT

LANGUAGES

Native: Twi, Fante, English

Intermediate: Spanish

Beginner: Mandarin

TECHNICAL STRENGTHS

Software: ArcGIS, ArcPro (Python Coding), Aurora, AutoCAD, HydroCAD, Julia, MicroStation, Machine Learning, MATLAB, Microsoft Excel VBA, Python, Qualtrics, RStudio, SQL, Terra Dotta, WordPress

Teaching: Microsoft Office, Google Suite, Student Admin, Blackboard

Writing: Google Scholar, LaTeX, Zotero

MEMBERSHIPS

National Society of Professional Engineers (NSPE)

American Academy of Environmental Engineers and Scientists (AAEES)

American Meteorological Society (AMS)

Institute of Electrical and Electronics Engineers (IEEE)

American Association of Colleges and Universities (AACU)

AWARDS

2023 John Lof Scholar

2023 GEM Fellow

2015 The Jacob L. and Lewis Fox Foundation Scholar

2015 Dennison Nash Undergraduate Scholar

2015 Connecticut Governors Scholar

2015 Roberta B Willis Scholar

2015 Presidential Scholar

PATENT

D. Cerrai, **S. Nyame**, W.O. Taylor, A. Spaulding, M. Koukoula, F. Yang, and E. Anagnostou (2023). SYSTEM AND METHOD FOR WILDFIRE IGNITION MODELING (Patent Pending). U.S. Patent and Trade-mark Office.

PUBLICATIONS

S. Nyame, W.O. Taylor, M. Koukoula, F. Wang, M. Hong, A. Spaulding, and D. Cerrai. Tree-Based Machine Learning Models for the Prediction of Wildfires in the California. *Fire Safety Journal* (pending)

S. Nyame, W.O. Taylor, W. Hughes, F. Wang, M. Koukoula, A. Spaulding, and D. Cerrai. Analysis of a Machine Learning and an Integrated Model for the Prediction of Failures in the Transmission Network. *IEEE Access* (pending)

W. Hughes, **S. Nyame**, W.O. Taylor, A Spaulding, M. Hong, X. Luo, S. Maslenikov, D. Cerrai, E.N. Anagnostou and W. Zhang, 2023 Dec. Probabilistic Method for Integrating Physics-based and Data-driven Storm Power Outage Prediction Models for Power Systems. *ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering*

W.O. Taylor, **S. Nyame**, W. Hughes, M. Koukoula, D. Cerrai and E.N. Anagnostou, 2022 Jun. Machine Learning Evaluation of Storm-Related Transmission Outage Factors and Risk. *Sustainable Energy, Grids and Networks*

PRESENTATIONS

S. Nyame, R.Z.Z. Qudair, D. Cerrai. Leveraging Machine Learning for a Wildfire Ignition Prediction Model in California. *Poster presentation at: University of Connecticut Weather Innovation and Smart Energy and Resilience Conference*; 2024 Jun 6-7; Storrs, Connecticut, USA

S. Nyame, M. Denton, D. Cerrai. Leveraging Machine Learning for a Wildfire Ignition Prediction Model in California. *Poster presentation at: 2024 American Meteorological Society Annual Conference*; 2024 Jan 28 - Feb 1; Baltimore, Maryland, USA

S. Nyame, S. Taffe, S. Brown, N. Taffe. Empowering Black Minds: Fostering Self-Determination and Intellectual Legacy. *Presentation at: 2024 American Association of Colleges and Universities Conference on Diversity, Equity, and Student Success*; 2024 May 16-17; Virtual, Virtual, USA

S. Nyame, S. Green, F. Akinkunmi, N. Taffe. Benefits of Black Woman-Focused Learning Communities in a Predominantly White Institution. *Roundtable discussion at: 2024 American Association of Colleges and Universities Conference on Diversity, Equity, and Student Success*; 2024 Mar 21-23; Philadelphia, Pennsylvania, USA

S. Nyame, S. Yellapantula and U. Egerer. Predicting Wind-Loading on Concentrated Solar Power Collectors using Machine Learning. *Presentation at: National GEM Consortium Conference*; 2023 Sep 14-16; Philadelphia, Pennsylvania, USA

S. Nyame, W.O. Taylor, E.N. Anagnostou, and D. Cerrai. Machine Learning for Transmission Risk Prediction. *Poster presentation at: Navigating Climate Change and Energy Security in The Northeast–The Next 5 Years*; 2022 Oct 24; Hartford, Connecticut, USA

S. Nyame, X. Zhang, M. Koukoura, F. Yang, T. Walsh, P. Watson, W.O. Taylor, A. Spaulding, D. Cerrai, and E.N. Anagnostou. Predictive Modeling for Storm Preparedness, Response, and Restoration. *Poster presentation at: University of Albany Weather Innovation and Smart Energy and Resilience Conference*; 2022 Mar 21-22; Albany, New York, USA

S. Nyame, W.O. Taylor, E.N. Anagnostou, and D. Cerrai. Machine Learning Methods for Transmission Outage Prediction. *Poster presentation at: University of Connecticut Student Association of Graduate Engineers (SAGE) 8th Annual Poster Competition*; 2022 Mar 8; Storrs, Connecticut, USA

MENTORING

Current UConn Undergraduate Mentees

Divine Akabo	Chemical Engineering	2023 - Present
Eyiram Alba	Finance	2023 - Present
Nina-Grace Bailey	Communications	2023 - Present
Saliim Brown	Psychological Sciences	2023 - Present
Kamari Cross	Management and Information Systems	2023 - Present
Keyron Haynes	Psychological Sciences	2023 - Present
Nyshawn Robinson	Environmental Engineering	2023 - Present

Foluke Akinkunmin	Africana Studies	2022 - Present
Komla Amezouwoe	Sport Management	2022 - Present
Kathrina Exantus	Healthcare Management	2022 - Present
Claude Hibbert Jr.	Political Science	2022 - Present
Brandon Jenkins-Garcia	Electrical Engineering	2022 - Present
Ashley Taffe	Political Science	2022 - Present
Sidney Taffe	Political Science	2022 - Present

Nathaniel Rodney	Chemical Engineering	2021 - Present
Wilmalis Rodriguez	Environmental Engineering	2021 - Present

Graduated UConn Undergraduate Mentees

Nasir Underwood	Africana Studies	2023 - 2024
Malachi Denton	Environmental Engineering	2022 - 2024
Bai Sama Kamara	Allied Health	2022 - 2023
Shariena Green	Psychological Sciences	2021 - 2024
Y'leise Saez	Electrical Engineering	2021 - 2023

Past UConn Undergraduate Mentees

Gavin Ascioilla	Exploratory	2024 - 2024
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