## Leona Neftaliem

leonan@stanford.edu | Stanford, CA, USA | Personal Website | LinkedIn | GitHub

#### **Education**

### Stanford University, Stanford, CA, USA

• Ph.D. Candidate in Environment and Resources

Fall 2022 - Present

- Ongoing research:
  - o Towards a North American Urban Tree Spatial Dataset
  - o Community-Engaged Air Quality Monitoring of South Baltimore, Maryland
- Committee: Drs. Chris Field (Lead Advisor), Rob Jackson (Lead Advisor), and Nicole Ardoin **Oxford University,** Oxford, England Feb. 2024 May 2024

# • Course: Data Analysis in Ecology: Statistics for Ecologists & Field Biologists

## George Washington University, Washington, D.C., USA

• B.S. Biology with honors; Minor: Sustainability

Fall 2020

• Honors thesis: "How to Get Away with Decomposition: Sunlight driven decomposition of lignin in simulated wood" (Advisor: Dr. Amy Zanne)

### **Pertinent Experience**

Biological Science Technician, Smithsonian Environmental Research Center Jan. 2021 - July 2022

- Built and programmed remote sensor loggers to measure CO<sub>2</sub> data for <u>GENX</u> at the <u>Global Change Research Wetland</u>
- Supported several ongoing climate change experiments by building sensor and heating infrastructure, and managing data (projects <a href="here">here</a>)
- Co-advised a George Washington University undergraduate researcher, Rose Cheney

Undergraduate Research, Dr. Amy Zanne's Lab, George Washington University Jan. 2018 - Dec. 2020

• Completed three independent research projects on the impact of solar radiation on wood decomposition and an undergraduate honors thesis

Teaching Assistantships

Graduate Teaching Assistant, Stanford University

SPIRE Stanford Student Impact Fund Grant (\$6,000)

Jan. 2024 - March 2024

2025

- Course: Designing Environmental Research
- Taught causal inference methods for environmental research to first-year PhD students

Undergraduate Teaching Assistant, George Washington University

Aug. 2018 - June 2020

Courses: Introductory Riology: Cells and Molecules lab and Introductory Riology 1112: The

- Courses: Introductory Biology: Cells and Molecules lab and Introductory Biology 1112: The Biology of Organisms
- Taught cellular, molecular, ecological, and evolutionary concepts and fundamental lab skills to undergraduates
- Supported additional classroom activities through ensuring lab protocols were met, grading assignments, proctoring and reviewing exams, creating lesson plans and lecturing, and holding weekly office hours

## Fellowships and Awards

SPIKE Stanford Student Impact Fund Grant (\$0,000)	2023
Smithsonian 'Life on a Sustainable Planet' Research Award (Co-PI; \$75,000)	2025 - Present
Stanford Community Impact Award	2024
Smithsonian 'Life on a Sustainable Planet' Research Award (Co-PI; \$49,188)	2023 - 2024
Knight-Hennessy Scholar (\$306,000)	2023 - Present
National Science Foundation Graduate Research Fellowship (\$138,000)	2022 - Present
Stanford Doerr School of Sustainability Dean's Graduate Scholar (\$100,000)	2022 - Present
Stanford EDGE Fellowship (\$12,800)	2022 - Present
GW Undergraduate Research Fellowship (\$5,000)	2020
GW Sigelman Undergraduate Research Enhancement Award (\$500)	2020
Harlan Undergraduate Summer Fellowship (\$5,000)	2019

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#### **Posters and Presentations**

- Neftaliem, L., Rich, R. L., Brown, D., LaGorga, L., Rosa-Rivera, C., Hedinger, A., Jackson, R. B, Cawood, A. Community-Engaged Air Quality Monitoring of South Baltimore, Maryland. American Geophysical Union, Washington, D.C., December 2024.
- LaGorga, L., Smith, T., **Neftaliem, L.**, Noyce, G. L., Rich, R. L. Comparison and Assessment of Low-Cost, DIY Arduino-Based CO<sub>2</sub> Measurement System with Instrument-Measured CO<sub>2</sub> Flux from Automated Chambers over Three Years in a Coastal Wetland. American Geophysical Union, Washington, D.C., December 2024.
- **Neftaliem, L.**, Field, C. B., Jackson, R. B. Towards a North American Urban Tree Spatial Dataset: Leveraging Urban Tree Inventories from 30 Cities in North America. American Geophysical Union, San Francisco, CA, December 2023.
- **Neftaliem, L.**, Rich, R. L., Noyce, G. L. Can a DIY Arduino-based system accurately measure CO<sub>2</sub> flux from automated chambers? American Geophysical Union, Chicago, IL, December 2022.
- **Neftaliem, L.**, Rich, R. L., Noyce, G. L. Finer Temperature Measurements and GenX Sensors. Global Research Wetland Symposium, Smithsonian Environmental Research Center, Edgewater, MD, March 2021.
- Rosenfield, M. V., **Neftaliem, L.**, Rich, R. L., Zanne, A. E. Carbon in the Capital: DC Metro carbon dioxide monitoring in the COVID-19 era. American Geophysical Union, Remote, December 2020.
- **Neftaliem, L.**, Rosenfield, M. V., Zanne, A. E. How to Get Away with Decomposition: Light driven decomposition on lignin in simulated wood. Honors Thesis Seminar, Remote, December 2020.
- **Neftaliem, L.**, Rosenfield, M. V., Zanne, A. E. Simulated Wood: Lignin Photodegradation. Harlan Poster Session, Washington, D.C., August 2019.

## **Invited Speaking Engagements**

- **Neftaliem, L.**, Rich, R. L., Brown, D., LaGorga, L., Rosa-Rivera, C., Hedinger, A., Jackson, R. B, Cawood, A. Breathe Baltimore: Community-Engaged Air Quality Monitoring of South Baltimore, Maryland. D.C. Air Research Consortium, Department of Energy and Environment, Remote, February 7, 2025.
- **Neftaliem, L.**, Rich, R. L., Brown, D., LaGorga, L., Rosa-Rivera, C., Hedinger, A., Jackson, R. B, Cawood, A. Breathe Baltimore: Community-Engaged Air Quality Monitoring of South Baltimore, Maryland. Baltimore Office of Sustainability, Remote, January 10, 2025.
- Rosenfield, M. V., **Neftaliem, L.**, Rich, R. L., Zanne, A. E. The Techno-Ecosphere: Using novel technologies to understand carbon emissions and ecosystem function. Smithsonian Gardens, *Let's Talk Gardens* Webinar, Remote, June 24, 2021.
- Rosenfield, M. V., **Neftaliem, L.**, Rich, R. L., Zanne, A. E. Carbon in the Capital: DC Metro carbon dioxide monitoring in the COVID-19 era. Smithsonian Gardens, Remote, October 30, 2020.
- Rosenfield, M. V., **Neftaliem, L.**, Rich, R. L., Zanne, A. E. Carbon in the Capital: DC Metro carbon dioxide monitoring in the COVID-19 era. Co-lecture in COVID-19 and the Environment (Walsh School of Foreign Service), Georgetown University, Remote, October 28, 2020.

#### **Publications**

- Neftaliem, L. (2024, October 23). *Breathing life into ghost towns: Harnessing the promise of €1 homes*. Knight-Hennessy Scholar Insights. <u>Link</u>.
- David J. Hayes, Stephen Ferruolo, David Haines, Katelyn McEvoy, **Leona Neftaliem**, Lisa Roberds, Siddharth Sachdeva, Celina Scott-Buechler, Angela Tsao, Katie Vogelheim, Brad Ward, Callie

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Walker, Benjamin Zehr, <u>Measuring the Carbon (and Other) Benefits of Climate-Smart Forestry Practices</u> (Policy Lab: Harvesting Climate Benefits from Agriculture and Forestry Practices (808Y); Teaching/Supervising Team: David J. Hayes). <u>Link</u>.

## Leadership, Volunteer, and Internship Experience

George Washington University Hospital, Volunteer

Stanford Doerr School of Sustainability, Recruitment Ambassador	Feb. 2025 - Present
The Building Africa's Cities Summit, Coordinating Committee Member	Feb. 2025 - Present
OMG-YA Science Fiction Novel, Researcher	Jan. 2024 - Present
Featured in: Knight-Hennessy Scholars KHeystone Projects, August 2024	<u>4</u>
Knight-Hennessy Scholars, Admission Ambassador	Sept. 2024 - Present
Stanford Doerr School of Sustainability Leadership, Peer Wellness Liaison	July 2023 - Present
Earthtones Environmental Justice Art Festival, Committee Member	Jan. 2023 - April 2023
R Data Carpentries Workshop, Helper	June 2022
Eritrean Refugee Centre, Mentor	Dec. 2020 - April 2021
Ethio-Bridge, Mentor	Dec. 2020 - April 2021
Planned Parenthood of Metropolitan, Washington, D.C., Engagement Intern	June 2018 - Aug. 2018

#### **Skills**

Computer: R; Python; Arduino; Bash programming; CRBasic; Google Earth Engine; Jupyter Notebook; ArcGIS Pro; GitHub; EAGLE; LoggerNet; Microsoft Office Languages: English (native), Tigrinya (native)

Jan. 2018 - May 2018

## **Research Interests**

Urban ecosystem ecology; Ecosystem services; Environmental justice; Sense of place