Anastasia (Anna) Oehlerking

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Education

Northwestern University, Evanston, IL — September 2025 - *2030*
Ph.D. Earth, Environmental, and Planetary Sciences

Yale University, New Haven, CT — August 2021 - May 2025
B.S. Environmental Engineering - Certificates in Data Science and Energy Studies

Relevant Coursework:

Environmental Engineering
Introduction to Environmental Engineering (ENVE 120), Biochemistry (BIOL 101), Cell Biology (BIOL 102), Genetics (BIOL 103), Ecology and Evolutionary Biology (BIOL 104), Differential Equations (ENAS 194), Organic Chemistry with Lab (CHEM 220/222L), Physics (PHYS 180/181), Thermodynamics (CENG 300), Environmental Transport Processes (ENVE 448), Renewable Energy Technology (ENGR 3060), Environmental Organic Chemistry (ENVE 438), Water Energy Nexus (ENVE 377), Fluid Mechanics (MENG 361), Computer Aided Engineering (MENG 400), and Sustainable Design (ENVE 360)

Environmental Policy, Economics, and Public Health
Microeconomics (ECON 110), Sustainability in the 21st Century (EVST 292), Climate and Society (EVST 422), Renewable Energy Economics/Policy (ENGR 3000), Multidisciplinary Topics in World Energy (ENRG 300), and Environment and Human Health (ENV 898)

Statistics and Data Science
Multivariate Calculus (MATH 120), Coding for Engineers (ENAS 130), Multivariate Statistics (S&DS 363), Data Exploration and Analysis (S&DS 230), Machine Learning (S&DS 265), Probability Theory (S&DS 240), and Observing Earth From Space (EPS 362)

Marshall School, Duluth, MN — August 2014 – June 2021

Work Experience

June – August 2025

National Aeronautics and Space Administration, *Earth Science Strategic Analysis Intern*

- Assisted the Systems Analysis and Concepts Directorate's Space Mission Analysis (Science and Technology) Branch with continual development and analyses of tools for analyzing data continuity among NASA's Earth Observation missions.
- Utilized data analysis, visualization, and scientific communication skills to integrate applied science applications to these tools for ease of communication with NASA's stakeholders and partners.
- Undertook data validation of database tool and conducted statistical analyses of current and future datum.

May 2024 – August 2024

Rocky Mountain Institute, *Data Science and Analytics Summer Intern*

- Analyzed the economic and health impacts of coal plant emissions of NOx, PM, and SO2 utilizing the EPA's CO-Benefits Risk Assessment model.
- Crafted an interactive dashboard to articulate these impacts at state and county levels.

Jan. 2024 – Aug. 2025

Yale Program on Climate Change Communication, *Social Media Producer*

- Cleaning data from global surveys regarding public opinion on climate change related issues.

- Publishing this data to influence conversations about climate change, environmental justice, and related issues.

August 2022 – May 2023

Yale University, *Pierson College Sustainability Liaison*

- Oversaw implementation of sustainable practices in Yale College, such as university-wide energy and waste audits, clothing swaps and drives, community events and environmental awareness.

Research Experience

Jan. 2024 – Aug. 2025

Yale School of Engineering & Applied Sciences, Gentner Lab, *Undergraduate Research Assistant*

- Undertook comprehensive data analysis of air pollutants in metropolitan areas in the New York City, utilizing Igor- and R- based analytical techniques to derive meaningful insights into their sources, trends, and fate.
- Conducted literature review and preliminary development for an R-based Lagrangian particle transport model for novel gas-phase urban emissions.

Sep. 2023 – May 2025

Yale School of Engineering & Applied Sciences, Winter Lab, *Undergraduate Research Assistant*

- Conducted methods development and standard operating procedures for electrochemical reactors and catalyst synthesis.
- Synthesized and tested transition-metal oxy-nitride carbon paper catalysts for reliability and conductivity for theoretical use in small-scale and affordable water treatment processes.

May 2023 – August 2023

Yale School of the Environment, Burke Lab, *Field Technician*

- Conducted field research for the design and execution of data collection and analysis regarding biogeochemical relationships between soil carbon levels and anticipated increased temperature due to climate change.

Leadership Experience

Sep. 2022 – Aug. 2024

Engineers Without Borders – Yale Student Chapter

Vice President (2023/2024)

- Facilitated team meetings, organized club logistics and funding, coordinated club relationships with Yale's center of Public Service and Social Justice, and presented our work at regional conferences.

Project Lead (2022)

- Developed and orchestrated collaborative design and health initiatives for improved water supply in communities in Tanzania and Ecuador.

2023 – 2024

Yale Undergraduate Environmental Engineering Club – *Co- President*

- Reestablished a network for resources and open communication between Yale Environmental Engineering undergraduates, graduate students, faculty, and alumni.
- Hosted study breaks, workshops, office hours, meetings with faculty, and trips to neighboring monitoring and industrial sites.

May 2023 – Aug. 2024

Yale Student Environmental Coalition (YSEC)

Project Lead – Yale Student Bikeshare

- Launched and streamlined implementation and upkeep of a school-wide student bikeshare program, involving budget management, and communication between bike users, bike sub-team leads, Yale staff and the YSEC board.

COP28 Ground Support – Public Health

- Created campus wide surveys about climate health in New Haven and beyond, as well as crafting community engagement materials to be presented both at Yale and COP28.

2023–2024

Yale Chapter of the American Institute of Chemical Engineers – *Outreach Chair*

- Hosting and promoting social and career events for student in Chemical Engineering and related majors.

2023-2024

Yale Skeet and Trap Club – *Captain*

- Organized safety training, weekly practices, budgets, and five intercollegiate competitions for a collegiate club sports team.

Skills

Languages	American Sign Language (Working Proficiency), French (Limited Proficiency), Dutch (Limited Proficiency)
Programming	Basic knowledge of MATLAB, SolidWorks, ArcGIS, C, C++, SQL and Python, Intermediate knowledge of Igor Pro, GraphPad Prism, ENVI, GEE, R, and Microsoft Office
Laboratory Equipment	BioLogic MTZ-35 Electrochemical Workstation, CHI66OD Electrochemical Workstation, PCE-BSK 310 Laboratory Balance, Rainin Precision Pipettes, LI-COR Trace Gas Analyzer, Picarro Gas Analyzer

Publications

- Butler, C., **Oehlerking, A.,** Saffer-Meng, M., Winter, L., "Earth-Abundant Transition Metal Oxynitrides for Electrochemical Nitrate Reduction and Selectivity for Nitrogen Gas" (In Prep).
- Machesky, J., Tran, M. N., **Oehlerking, A.,** Seo, M., Joo, T., Hass-Mitchell, T., Rogers, M., Nault, B. A., Roscioli, J., Canagaratna, M., Krechmer, J.E., Presto, A., Lambe, A., Gentner, D. R., "Near-source and Urban Top-Down Observations of Gas-Phase Organic Compound Emissions from Cooking-Related Sources" (In Prep).
- **Oehlerking, A.,** Tosado, G., "Economic Dispatch Health Impacts. Utility Transition Hub" (2024)
- Tosado, G., **Oehlerking, A.,** Massie, A., Daniel, J., “How Uneconomic Coal Plants Hurt our Health – and Drive Up Healthcare Costs” (2025)

Certifications

Adult and Pediatric First Aid/CPR/AED Certification Expires August 2027

Volunteering Experience

Yale Environmental Education Collaborative, *Volunteer* August 2021 – May 2022

- Instructed young learners in the principles of environmental science and water quality at the elementary and middle school levels.

Hartley Nature Center, *Counselor in Training.* May 2018 – August 2020

- Facilitated children ages 2 to 12 while instructing them on sustainability practices, ecological conservation, and interpersonal skills. Specialized in helping those with learning disabilities.

Duluth Archery Club, *Volunteer* May 2015 – August 2023

- Assisted with trail maintenance, administrative duties, and communications between club members.

Awards, Scholarships, and Committees

Honorable Mention - National Science Foundation Graduate Research Fellowship (2025)
Pierson Mellon Scholar for Undergraduate Research (2024/25)
Yale SEAS Student Career Placement Committee Member (2025)
Ackerman Teaching Award – Student Review Panel Member (2024)

Yale Summer Experience Award Recipient (2023)
Yale International Study Award (2022)
Julie Vance and Jason Carter Travel Fellowship (2023)
Oscar Mitchell and Mary Wildey Mitchell Scholarship Recipient (2021/2022)
MSHSL EXcel Award Nominee (2019)
National Merit Commended Scholar (2020)
Yale Book Award Recipient (2020)