

Selma Sharaf, Research Associate

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PROFESSIONAL EXPERIENCE

Synapse Energy Economics, Inc., Cambridge, MA. *Research Associate*, July 2022 – Present

- Consults on energy-sector issues, including offshore wind, beneficial electrification, and energy efficiency modeling

ADL Ventures, Cambridge, MA. *Clean Energy Intern*, Sep 2021 – May 2022

- Applied technical due diligence, financial analysis, and engagement with scientific and entrepreneurial communities to help commercialize clean energy innovation and bring novel clean technology concepts to market

Sustainable Energy Advantage, LLC., Framingham, MA. *Research Associate Intern*, June – Aug 2021

- Conducted quantitative modeling, communicated complex topics, and researched new technologies to assist with three major consulting projects and renewable energy market analysis in the US Northeast region

Bennett College, Greensboro, NC. *Climate Action Plan Research Intern*, Jan – June 2021

- Identified and engaged stakeholders, held roughly 15 interviews in the first month, and gathered and analyzed data to create college's first-ever climate action plan
- Assisted with grant-writing to secure \$75K green renovation grant, energy audit valued at \$10K

Atmospheric Chemistry and Composition Modeling Group, MIT, Cambridge, MA. *Undergraduate Student Researcher*, Jan 2019 – Jan 2021

- Performed statistical analysis on meteorology dataset to identify and understand geographic and temporal trends in heat waves over the continental US
- Modeled impacts of these trends on regional air quality, particularly surface ozone concentrations, with the aim of providing process-level insight into these interactions
- Presented poster at the 2020 AGU Fall Meeting (>20K attendees) titled, "A historical analysis of heat waves over the continental US and their impact on regional air quality"

Resilient Infrastructure Networks Lab, MIT, Cambridge, MA. *Undergraduate Student Researcher*, June – Aug 2020

- Analyzed Planet Labs imagery to assess COVID-19 lockdown impacts on key US supply chain corridors

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- Built classification neural network to identify discriminative regions of satellite images before/after lockdowns

City of Strasbourg/Eurometropolis, Strasbourg, France. *Summer Sustainability Intern*, June – July 2019

- Developed sustainability strategy for the City's role in the 2024 Paris Olympic and Paralympic Games
- Delivered recommendations for improving sports facilities based on LEED standards

EDUCATION

Massachusetts Institute of Technology, Cambridge, MA

Bachelor of Science in Environmental Engineering, minor in Management, 2022

Member of Chi Epsilon and 2021 Recipient of Paul L. Busch (1958) Prize

SKILLS

R, MATLAB, Python, Vensim, Microsoft Office Suite, LEED Green Associate

Resume updated July 2022