

Ellen Carlson, Research Associate

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PROFESSIONAL EXPERIENCE

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

- Performs quantitative and qualitative research and analysis on energy-sector issues including energy efficiency, the future of natural gas, and energy justice.

Cold Climate Housing Research Center, Fairbanks, AK. *Research Project Intern*, August 2021 – May 2022

- Finalized the data management plan for research project evaluating the moisture resilience of walls with blown-in fiberglass insulation in rural Alaska.
- Prepared research project communication and outreach materials including conference presentation slides and community information

National Renewable Energy Laboratory, Fairbanks, AK. *Science Undergraduate Laboratory Internship Research Intern*, May 2021 – August 2021

- Analyzed home assessment data to extract the median expected cost savings, carbon reduction, and energy use reduction for homeowners participating in the Thermalize Juneau residential clean energy campaign and compared them to energy modeling results.
- Conducted outreach phone calls to local homeowners to facilitate campaign participation and communication.

Research Experience for Undergraduates, University of Illinois at Urbana-Champaign. *Summer Research Intern, Gadway Lab*, May 2020 – August 2020

- Conducted research remotely on the topology of synthetic mechanical metamaterials.
- Helped design a LabVIEW FPGA computer program for a remote, manipulable spring force for a single harmonic oscillator.

EDUCATION

Haverford College, Haverford, PA: B.S. in Physics, Growth and Structure of Cities, 2022

Senior Theses: *Comparative simulation of the thermal performance of Trombe wall systems for Alaskan homes; Cold, Rural, and Remote: Approaches to Achieving Energy Efficiency in Alaskan Communities*

SKILLS

Microsoft Office Suite, SketchUp, ArcGIS, EnergyPlus and OpenStudio

Resume updated July 2022