Sarah I. Hamilton

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EDUCATION

Master of Environmental Science and Management, 4.00 GPA (Expected June 2023)
Bren School of Environmental Science & Management – University of California, Santa Barbara (UCSB)
Specialization: Corporate Environmental Management
Highlighted Coursework: Carbon Footprints and Carbon Accounting, Life Cycle Assessment, Financial Management and Environmental Accounting, Energy Demand Analysis, Corporate Environmental Management, Environmental Law and Policy, Advanced Data Analysis (All to be completed by June 2023)

Bachelor of Science in Civil Engineering, 3.95 GPA (May 2021)
Additional Major in Engineering and Public Policy, Minor in Environmental and Sustainability Studies
Carnegie Mellon University (CMU), Pittsburgh, PA
Honors/Awards: H.A. Thomas Senior Scholarship Award, Civil & Environmental Engineering Research Award, College of Engineering Honors, University Honors, Dean's List (8 Semesters)

SUSTAINABILITY MASTER'S GROUP PROJECT | Client: MATE the Label

Product Chemistry Hotspot Analysis to Reduce Human Health and Ecological Impacts (4/22–Present)
- Conducting an analysis of the environmental impact of chemical feedstocks for 6 textile fibers
- Gathering data on 125 chemicals used in client's supply chain to identify ecological and human health hazards
- Creating a method for an additive hazard assessment and ranking of fabrics using R to analyze hazard data
- Providing client with a report and presentation outlining recommendations for improved product sustainability

ENVIRONMENTAL & ENGINEERING PROFESSIONAL EXPERIENCE

Corporate Sustainability Intern – Lean Green Way, Long Beach, CA (6/22–8/22)
- Researched and developed recommendations for the client on 24/7 carbon-free energy, construction life cycle impacts and relevant LEED metrics, water stress measurement tools, and sustainability website design
- Improved company's greenhouse gas estimates by incorporating updated scope 3 emissions factors, reviewing a construction life cycle assessment, and creating 3 data visualizations to show progress on sustainability metrics
- Authored 2 blog posts about water restoration certificates and the environmental impacts of 3 types of batteries

Food Systems Policy Research Assistant – Carnegie Mellon University, Pittsburgh, PA (8/20–5/21)
- Analyzed effectiveness of three policies pertaining to environmental sustainability of Pittsburgh's food system
- Authored 17-page policy analysis and recommendations paper explaining how to lower food system emissions

Civil Engineering Research Assistant – Carnegie Mellon University, Pittsburgh, PA (5/19–12/19)
- Collected and analyzed vibration data from 4 sink locations to develop a hand-washing monitoring system
- Co-authored paper (25 pages) that is published in ACM Transactions on Computing for Healthcare

Engineering, Scientific, & Technical Intern – PA Department of Transportation, Pittsburgh, PA (5/18–8/18)
- Utilized roadway design plans and construction standards to ensure accurate implementation of projects
- Assisted construction inspectors with calculations for bridge and roadway construction projects

SUSTAINABILITY & POLICY PROJECTS

Power Plant Carbon Footprint Analysis – Carbon Footprints and Carbon Accounting (9/22–11/22)
Calculated and compared the scope 1, 2, and 3 emissions of a natural gas power plant and a hydrogen power plant.
Electric Vehicle (EV) Adoption Impacts – Engineering and Public Policy Senior Projects II (2/21–5/21)
Analyzed the effects of increased EV adoption and formed recommendations for policymakers.

SKILLS AND CERTIFICATIONS

Corporate Sustainability: GHG Protocol Emissions Calculation Tool, Life Cycle Analysis
Computer: Microsoft Office (Word, Excel, PowerPoint), R-Script, GitHub
Communication & Teaching: Technical Writing; Teaching Assistant for Psychology, Introduction to Statistics – UCSB, Santa Barbara, CA; Teaching Assistant for Earth Science, Catastrophes – UCSB, Santa Barbara, CA