

Madalsa Singh

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EDUCATION

Stanford University

Sep 2019 - Jun 2024 (expected)

PhD Candidate

Energy Resources Engineering

Carnegie Mellon University

Aug 2018 - May 2019

Master of Science

Energy Science and Mechanical Engineering

Indian Institute of Technology Bombay

Aug 2011 - Aug 2015

Bachelor of Technology

Materials Science and Metallurgical Engineering

PUBLICATIONS

- Distributional impacts of fleet-wide change in light duty transportation: mortality risks of PM_{2.5} emissions from electric vehicle and Tier 3 conventional vehicles. (with Chris Tessum, Julian Marshall, Inês Azevedo) [in review]
- How clean does the U.S. electricity grid need to be to ensure electric vehicles reduce greenhouse gas emissions? (with Tugce Yuksel, Jeremy Michalek, Inês Azevedo) [in-review]
- Pathways to Zero Emissions in California's Light-Duty Transportation Sector. (with Nora Henessey, Sarah Saltzer, Inês Azevedo) [in submission]
- Pathways to Zero Emissions in California's Heavy-Duty Transportation Sector. (with Nora Henessey, Sarah Saltzer, Inês Azevedo) [in submission]
- How differential privacy will affect our understanding of air pollution exposure and disparities in the United States. *Findings* 2023.
- Performance metrics required of next-generation batteries to electrify commercial aircraft. (with Alexander Bills, Shashank Sripad, Venkat Vishwanathan). *ACS Energy Letters* 2020
- Microhybrid electricity system for energy access, livelihoods, and empowerment. (with P. Balachandra). *Proceedings of the IEEE* 2019

CONFERENCE & TALKS

- INFORMS 2023.
- Transport Research Annual Meeting 2023
- International PhD Workshop on Sustainable Development, Columbia University, 2023, 2022
- American Geophysics Unions Fall 2022
- United States Association for Energy Economics, 2022
- Stanford Energy Student Lecture, 2020
- Women in Clean Energy Symposium, Stanford University, 2019
- India Energy Access Summit, 2018
- International Conference of Indian Society of Ecological Economics, 2017

AWARDS

The William H. Bourne Fellowship, 2023

AGU Travel Grant, 2022

Fellow, Inaugural Aspen Climate Cohort 2022 (*declined*)

Winner, United States Energy Economics Case Competition, 2020

Alumni Award, Carnegie Mellon University, 2018

EST&P Travel Grant, Carnegie Mellon University, 2018

Science Fellowship, Department of Science and Technology, Government of India, 2011 (*declined*)

SERVICE	<p>Teaching : Quantitative Methods for Energy Decisions 2021. 1 out of 2 teaching assistants responsible for grading, office-hours, extra lectures, and problem set conceptualization</p> <p>Reviewer: IEEE Vehicle Power and Propulsion, Energy Policy, Environment Research Letters</p> <p>Department Service: Graduate Student Advisory Committee Representative, Department of Energy Resources Engineering, Stanford University (2022-)</p> <p>Graduate Student Panelist, Stanford School of Earth, Energy & Environmental Sciences Faculty Search, 2021</p> <p>President, Women in Earth Sciences, Stanford University (2021-)</p> <p>Department Mentor, Energy Resources Engineering, Stanford University (2021-)</p>								
SKILLS	Python, Julia, GIS								
PROFESSIONAL EXPERIENCE	<table> <tr> <td data-bbox="438 655 974 680">Tesla Inc. <i>Algorithms and Operations Intern</i></td><td data-bbox="1175 655 1433 680">June 2022 - Sept 2022</td></tr> <tr> <td data-bbox="438 684 922 743">California Public Utilities Commission, Office of Commissioner Martha Guzman Aceves <i>Energy Systems Intern</i></td><td data-bbox="1175 718 1433 743">May 2021 - Sept 2021</td></tr> <tr> <td colspan="2" data-bbox="438 747 1159 806">- Lead in-house energy systems modeler for commission's net energy metering rulemaking for prosumers : NEM3.0 proceeding and proposed decision</td></tr> <tr> <td data-bbox="438 810 1159 835">Oorja Development Solutions Ltd., <i>Technical Consultant</i></td><td data-bbox="1188 810 1433 835">Oct 2017 - July 2018</td></tr> </table>	Tesla Inc. <i>Algorithms and Operations Intern</i>	June 2022 - Sept 2022	California Public Utilities Commission, Office of Commissioner Martha Guzman Aceves <i>Energy Systems Intern</i>	May 2021 - Sept 2021	- Lead in-house energy systems modeler for commission's net energy metering rulemaking for prosumers : NEM3.0 proceeding and proposed decision		Oorja Development Solutions Ltd. , <i>Technical Consultant</i>	Oct 2017 - July 2018
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