

Aviva Loew, PhD

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Diligent, creative, and interdisciplinary researcher. Strong written and oral communication skills, and work experience in consulting, international outreach, and project management.

WORK EXPERIENCE

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|---|-------------|
| Jerusalem Green Fund -- Intern | 2020 |
| <ul style="list-style-type: none">• Supporting stakeholder engagement, collaboration and communications | |
| Conservation International -- Green Infrastructure Intern | 2019 |
| <ul style="list-style-type: none">• Researched existing water infrastructure in Sub-Saharan Africa and compiled data sources on distribution, capacity, water quality and quantity | |
| Carnegie Mellon University – Research Assistant and Project Manager | 2013 - 2019 |
| <ul style="list-style-type: none">• Researched energy and water topics including water conservation adaptations for thermal power plants, electricity system vulnerabilities, and brackish water desalination methods for electricity sector application• Used various analytical methods such as techno-economic assessment, modeling with uncertainty, spatial mapping and statistical analysis• Managed capstone project course on campus sustainability and facilitated research teams, report compilation, and student presentations• Led recitation sessions, designed projects, and undertook administrative tasks for “Introduction to Engineering and Public Policy”, class of 70 undergraduates• Taught classes, led science demos, and supervised field trips within annual summer school program for local high school students• Presented at national and international conferences, including the American Society of Civil Engineers, Carnegie Mellon Electricity Industry Center, International Symposium on Sustainable Systems & Technology, United States Association of Energy Economics, 7th World Water Forum | |
| Abt Associates, Inc., Environment and Resources Division – Research Assistant | 2011 – 2013 |
| <ul style="list-style-type: none">• Evaluated novel technologies for economic, health and environmental benefits for Presidential Green Chemistry Challenge Award• Facilitated stakeholder participation and contributed to research on potential phthalate alternatives through an EPA government-industry partnership• Represented EPA Office of Pollution Prevention at national conventions and on social media | |

Massachusetts General Hospital Cancer Center - International Project Manager 2010 – 2011

- Expedited survey distribution to study access-to-care disparities for cancer patients globally; supported database creation and managed IRB records
- Helped establish international public health fellowship program by assisting scientists from Latin America in communications and navigation of protocols

EDUCATION

Carnegie Mellon University, Pittsburgh, PA Dec. 2018

- PhD in Engineering and Public Policy
- Thesis: Tradeoffs in Energy, Water Use, and Cost at Thermoelectric Power Plants
- Semester at CMU-Africa campus in Kigali, Rwanda (Spring 2017)

Brown University, Providence, RI May 2010

- B.S. in Chemistry with Honors
- Semifinalist for McKnight Prize in Chemistry
- Fulbright Student Research Award (declined)

LANGUAGES

English, Spanish, Hebrew

SOFTWARE

Microsoft Office Suite, Excel, R, ArcGIS, QGIS, SQL

PEER-REVIEWED PUBLICATIONS

- Loew, A., Jaramillo, P., Zhai, H. Marginal costs of water savings from cooling system retrofits: a case study for Texas power plants. *Environmental Research Letters* **2016** 11(10), 104004.
- Loew, A., Jaramillo, P., Zhai, H., Ali, R., Nijssen, B., Cheng, Y., Klima, K. Fossil Fuel-fired Power Plants Operations Under A Changing Climate. *Climatic Change* **2020**, 1-14.
- Lee, Y., Loew, A., Sun, S. Surface- and Structure-Dependent Catalytic Activity of Au Nanoparticles for Oxygen Reduction Reaction. *Chemistry of Materials* **2010** 22 (3), 755-761.
- Sergi, B., Williams, N., Babcock, M., Thornburg, J., Loew, A., Ciez, R. Institutional Influence on Power Sector Investments: A Case Study of On- and Off-Grid Energy in Kenya and Tanzania. *Energy Research and Social Science* **2018** (41), 59-70.
- Ralston, R.F., Craig, M., Jaramillo, P., Berges, M., Severnini, E., Loew, A., Zhai, H., Cheng, Y., Nijssen, B., Voison, N., Yearsley, J. Climate-induced tradeoffs in planning and operating costs of a regional electricity system. Manuscript under review.
- Vörösmarty, C.J. et al. Transforming Water Security in Africa Using Green and Grey Infrastructure. Manuscript under review.

Journal Reviewer

- Environmental Research Letters