

# SRUTI MODEKURTY

## EDUCATION

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**Helmholtz Center for Environmental Research (UFZ);**

**University of Potsdam**

**Leipzig, Germany**

*PhD in progress*

Nov 2023 - present

Topic: Text-Mining approach to mapping equitable and community-driven urban adaptation to extreme events

Advisors: Dr. Mariana de Brito, Dr. Christian Kuhlicke

**Glasgow Caledonian University; LAB University of Applied Sciences; Universidad de Huelva; HTW Dresden**

**Glasgow, Scotland; Lahti, Finland; Huelva, Spain; Dresden, Germany**

*Erasmus Mundus Joint MSc., Urban Climate & Sustainability*

Sep 2023, with Distinction

Relevant Coursework:

- Climate Change in the Urban Environment
- GIS & Environmental Management
- Data Management for Urban Environments
- Remote Sensing & Geodesy

Thesis: Assessing the Systemic Impact of Solar Energy Projects for Low-Income Communities in the United States

**Carnegie Mellon University**

**Pittsburgh, United States**

*BSc., Electrical & Computer Engineering*

Dec 2018

Relevant Coursework:

- Energy & the Environment
- Introduction to Machine Learning
- Innovating for Underserved Communities
- Sustainable Energy for the Developing World

## WORK EXPERIENCE

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**UNDP Global Centre for Technology,**

**Intern, Smart Cities**

**Innovation and Sustainable Development**

**Mar – Aug 2022**

- Managed development of RapidPro survey on digital technologies for SIDS youth in 20 countries, including background research, sourcing and coordinating with consultants, survey design, marketing materials, outreach
- Researched case studies & best practices for climate mitigation & adaptation urban innovations
- Researched and wrote report on SIDS digital capabilities and challenges

**Platform Lead**

**OpenAQ**

**Nov 2019 – Jul 2021**

- Maintained open data infrastructure of 8+ billion air quality measurements from 150+ sources in 100+ countries with 35 million API requests/month
- Integrated low cost sensor data onto the platform with development partners, increasing data ingestion 10x
- Managed projects with government entities and international NGOs including NASA, WRI, EDF
- Engaged and assisted global community spanning various sectors in utilizing data and tools
- Oversaw open source contributions; collaborated with communities to develop tools and lead workshops
- Advised international government authorities including the cities of Quito, Bogota, Kigali on API development and open data infrastructure best practices
- Collaboratively designed and developed an air quality snapshot tool to aid individuals and community groups with data access

**New York City Mayor's Office for**

**Engineering Fellow**

**Economic Opportunity**

**Dec 2019 - Mar 2020**

- Continued research and development of digital document tool created at Blue Ridge Labs
- Designed prototype of tool; Analyzed tool use cases and existing solutions

<b>Engineering Fellow</b>	<b>Blue Ridge Labs</b>	<b>Jun - Oct 2019</b>
<ul style="list-style-type: none"> <li>• Researched affordable housing in NYC through extensive interviews with dozen stakeholders, community experts with lived experience, government agencies and nonprofits</li> <li>• Designed and launched prototypes of tool to digitally manage critical documents for homeless New Yorkers</li> <li>• Led design sprints, synthesized research from varied sources</li> </ul>		
<b>Software Engineer</b>	<b>Two Bulls</b>	<b>Aug 2016 - Nov 2018</b>
<ul style="list-style-type: none"> <li>• Project lead &amp; sole full stack engineer for IoT Android app</li> <li>• Developed smart city digital kiosk prototype for startup acquired by Fortune 50 company; Aided international clients with demos</li> </ul>		

## **VOLUNTEER & LEADERSHIP EXPERIENCE**

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	<b>Earth Science Information Partners (ESIP)</b>	
<b>Community Fellow</b>		<b>Dec 2022 – Dec 2023</b>
<ul style="list-style-type: none"> <li>• Won \$3000 grant funding to implement community-led data project in Asheville, North Carolina</li> <li>• Supported Community Resilience cluster meeting activities such as reminder emails, note-taking, planning</li> <li>• Advised EGU conference attendees at the Open Science and Data Help Desk on open data technologies and practices</li> </ul>		
<b>Board of Directors Member</b>	<b>HackNY</b>	<b>Nov 2020 – Sep 2022</b>
Associate Board Co-Chair		Jan 2020 – Apr 2021
Mentor		May 2017 - Aug 2018
<ul style="list-style-type: none"> <li>• Managed Executive Director and contributed to development of organizational strategy, particularly to help underrepresented students in technology</li> <li>• Advised Associate Board on initiatives, conflicts, and funding</li> <li>• Managed alumni-led initiatives such as fundraising, community gatherings, and summer Fellowship</li> <li>• Co-founded initiative which partners students with local organizations to complete tech for good projects</li> <li>• Sourced organizations, scoped projects, advised technical teams</li> </ul>		
<b>Founder &amp; Program Lead</b>	<b>GiRL Camp</b>	<b>Mar 2013 - Aug 2014</b>
<ul style="list-style-type: none"> <li>• Started a robotics and leadership camp for girls in STEM in partnership w/ UC Davis C-STEM Center Program has grown to 50+ students at multiple sites</li> <li>• Developed curriculum, recruited coaches and participants, taught programming fundamentals to students</li> <li>• Awarded \$5000 and \$3000 grants from National Center for Women &amp; Information Technology (NCWIT)</li> </ul>		

## **FELLOWSHIPS & AWARDS**

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CNDS Summer School on Disaster Risk Reduction Participant	Aug 2024
Erasmus Mundus Joint Master's Scholarship	Sep 2021 - 2023
Bochum Urban Climate Summer School Participant	Sep 2022
The Coaching Fellowship Fellow	Jun - Nov 2020
National Center for Women & Information Technology Aspirations National Award Runner-up	May 2012

## SELECTED PUBLICATIONS

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**Modekurty, S.** (2022) “Smarter, Greener Cities through Community, Open Data and Systems Thinking”. *Branch Magazine*. <https://branch.climateaction.tech/issues/issue-4/smarter-greener-cities-through-community-open-data-and-systems-thinking/>

Keller, C. A., M. J. Evans, K. E. Knowland, C. A. Hasenkopf, **S. Modekurty**, R. A. Lucchesi, T. Oda, B. B. Franca, F. C. Mandarino, M. V. Díaz Suárez, R. G. Ryan, L. H. Fakes and S. Pawson (2020) “Global Impact of COVID-19 Restrictions on the Atmospheric Concentrations of Nitrogen Dioxide and Ozone”, arXiv:2008.01127v1, <https://arxiv.org/abs/2008.01127v1>.

Stempeck, M., Sifry, M., Bhatia, A., & **Modekurty, S.** (2019). “A Timeline of Civic Tech Tells a Data-Driven Story of the Field.” *Civichall.org*. <https://civichall.org/civicist/how-civic-tech-has-evolved-over-the-last-25-years/>

**Modekurty, S.**, & Fong, J., & Cheng, H. H. (2014), *C-STEM Girls Computing and Robotics Leadership Camp* Paper presented at 2014 ASEE Annual Conference & Exposition, Indianapolis, Indiana. <https://peer.asee.org/20141>

## SELECTED TALKS & PRESENTATIONS

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Presenter, “Mapping Urban Adaptation: A Global Database Derived from Text-Mining”, What Works Climate Solutions Summit	Jun 2024
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Panelist & Session Organizer, “Opening Doors to Climate Preparedness in Small Communities”, ESIP July Meeting	Jul 2023
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Presenter, “Next Steps for Earth Science Contributions to Community Resilience”, European Geophysical Union General Assembly	Apr 2023
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Invited Guest Lecturer, “Innovating for Climate Change & Sustainable Development”, Vellore Institute of Technology	Jan 2023
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Invited Guest Lecturer, “OpenAQ: Architecture, Data Journey and Challenges”, Universitat de Girona	Dec 2020
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Panelist, “Air pollution menace and the future of Delhi’s communities”, IIIT Delhi’s Digital Delhi Conclave	Dec 2020
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Workshop Leader, “Decolonizing Air Pollution Science”, International Society of Exposure Science Annual Meeting	Sep 2020
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Presenter, “OpenAQ: An open source tool to understand the world’s air quality”, Free Open Source Software 4 Good:UK Conference	Jun 2020
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## LANGUAGES & TECHNOLOGIES

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Technical: Python, JavaScript, AWS, ArcGIS, QGIS, Android, Kotlin, C, React Native, Arduino  
Linguistic: English (Native), Telugu (Fluent), German (Basic), French (Basic), Spanish (Basic)