

# SRUTI MODEKURTY

sruti.modekurty@gmail.com  
www.sruti.me

## EDUCATION

**Glasgow Caledonian University; LAB University of Applied Sciences; University de Huelva**

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

*Erasmus Mundus Joint Master of Science, Urban Climate & Sustainability*

Expected: Sep 2023

Relevant Coursework:

- Climate Change in the Urban Environment
- GIS & Environmental Management
- Urban Ecology & Nature-Based Solutions
- Data Management for Urban Environments
- Climatology
- Remote Sensing & Geodesy

**Carnegie Mellon University**

**Pittsburgh, United States**

*Bachelor of Science, Electrical & Computer Engineering*

Dec 2018

Relevant Coursework:

- Energy & the Environment
- Sustainable Energy for the Developing World
- Intro to Civil & Environmental Engineering
- Innovating for Underserved Communities
- Mechatronics Senior Design Project
- Embedded Systems Engineering

## WORK EXPERIENCE

**Intern** **UNDP Global Centre for Technology, Innovation and Sustainable Development** **Mar – Aug 2022**

- Managed development of RapidPro survey on SIDS youth digital futures including background research, sourcing and coordinating with consultants, survey design, marketing materials, outreach
- Researched several case studies and provided feedback for Smart City Handbook
- 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
- Developed new API endpoints to calculate pollutant averages across spatial and temporal resolutions
- 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
- Spearheaded platform improvement of increasing API limit from 90 days of data to 2 years
- Collaboratively designed and developed an air quality snapshot tool to aid individuals and community groups with data access

**Engineering Fellow** **NYC Mayor's Office for 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

**Engineering Fellow** **Blue Ridge Labs** **Jun - Oct 2019**

- Researched affordable housing in NYC through extensive interviews with a dozen stakeholders, community experts with lived experience, government agencies and nonprofits
- Designed, built and tested digital document storage & process management tool for homeless New Yorkers
- Led design sprints, synthesized research from government documents

<b>Facilitator</b>	<b>Decoded</b>	<b>Jan - May 2019</b>
<ul style="list-style-type: none"> <li>Led hands-on tech &amp; innovation workshops for Fortune 100 clients on topics including Machine Learning, APIs, Cybersecurity</li> </ul>		
<b>Software Engineer</b>	<b>Two Bulls</b>	<b>Aug 2016 - Nov 2018</b>
<ul style="list-style-type: none"> <li>Designed and developed Android app to teach kids coding through flying drones in AR</li> <li>Project lead &amp; sole full stack engineer for IoT Android app demoed at CES (international tech conference);</li> <li>Developed initial digital kiosk prototype for startup acquired by Fortune 50 company; Aided international clients through demo &amp; live kiosks</li> </ul>		
<b>Engineering Intern</b>	<b>Johns Hopkins School of Medicine</b>	<b>Jun - Jul 2016</b>
<ul style="list-style-type: none"> <li>Wrote spectrofluorometric image analysis scripts for pulmonary research at Damarla Lab</li> </ul>		
<b>Software Engineering Intern</b>	<b>Birchbox</b>	<b>May - Aug 2014</b>
<ul style="list-style-type: none"> <li>Built and launched an interactive webpage for finding Birchbox video tutorial content</li> </ul>		
<b>Firmware Engineering Intern</b>	<b>Intel Corporation</b>	<b>Jun - Aug 2013</b>
<ul style="list-style-type: none"> <li>Created tests for WiDi and Widevine image-processing firmware</li> <li>Researched power management optimization for mobile device battery life</li> </ul>		
<b>Student Researcher</b>	<b>Boston University</b>	<b>Jul - Aug 2011</b>
<ul style="list-style-type: none"> <li>Implemented Cooperative Receding Horizon Control Algorithm with robots</li> </ul>		

## **VOLUNTEER & LEADERSHIP EXPERIENCE**

<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>Leading development of new program to equip BIPOC students in tech with technical mentorship and resources</li> <li>Co-founded HackNY Social Good Initiative in 2017, which partners student interns with local organizations to complete tech for good projects</li> </ul>		
<b>Software Engineer</b>	<b>Columbia University School of Medicine</b>	<b>Mar - April 2020</b>
<ul style="list-style-type: none"> <li>Created an open source web app for medical practitioners to perform a risk calculation for COVID-19 patients; page has over 1000+ views from 10+ countries</li> </ul>		
<b>Resident Assistant</b>	<b>Carnegie Mellon University</b>	<b>Aug 2015 - May 2016</b>
<ul style="list-style-type: none"> <li>Advised and organized educational and social activities for 25 students in student dorm</li> </ul>		
<b>Co-Founder &amp; President</b>	<b>Saans A Cappella</b>	<b>Aug 2014 - May 2016</b>
<ul style="list-style-type: none"> <li>Established Carnegie Mellon's first all-female South Asian a cappella group</li> <li>Recruited team members, directed music, and organized performances</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</li> <li>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 NCWIT</li> </ul>		

## **FELLOWSHIPS & AWARDS**

Erasmus Mundus Joint Masters Scholarship	Sep 2021 - 2023
Earth Science Information Partnership Community Fellow	Dec 2022 - Dec 2023
Bochum Urban Climate Summer School Participant	Sep 2022
The Coaching Fellowship Fellow	Jun - Nov 2020

Recurse Center Resident	Jan - Mar 2019
Boy Scouts of America Discovery Award	Dec 2018
hackNY Fellow	May - Aug 2014
Square College Code Camp Participant	Jan 2014
National Center for Women & Information Technology Aspirations National Award Runner-up	May 2012

## PUBLICATIONS

---

**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/>

Suresh, K., Servinsky, L., Reyes, J., Undem, C., Zaldumbide, J., Rentsendorj, O., **Modekurty, S.**, ... Shimoda, L. (2016). “CD36 mediates H<sub>2</sub>O<sub>2</sub>-induced calcium influx in lung microvascular endothelial cells”. *American Journal of Physiology - Lung Cellular and Molecular Physiology*, 312(1), L143-L153. <https://doi.org/10.1152/ajplung.00361.2016>

**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>

## TALKS & PRESENTATIONS

---

Guest Lecturer, “Innovating for Climate Change & Sustainable Development”, Vellore Institute of Technology	Jan 2023
Guest Lecturer, “OpenAQ: Architecture, Data Journey and Challenges”, Universitat de Girona	Dec 2020
Presenter, “Air Quality Snapshot Tool”, US Census Bureau’s The Opportunity Project Demo Week	Dec 2020
Panelist, “Air pollution menace and the future of Delhi’s communities”, IIIT Delhi’s Digital Delhi Conclave	Dec 2020
Workshop Leader, “How to Explore, Access, and Analyze Half a Billion Open Air Quality Data points from 84 Countries”, International Society of Exposure Science Annual Meeting	Sep 2020
Workshop Leader, “Decolonizing Air Pollution Science”, International Society of Exposure Science Annual Meeting	Sep 2020
Panelist, “Air Quality State of Play: Openness of data, Averaging Tool, and COVID-19”, OpenAQ Global Community Series	Jul 2020
Presenter, “OpenAQ: An open source tool to understand the world’s air quality”, Free Open Source Software 4 Good:UK Conference	Jun 2020
Panelist, “Tools for Exploring Air Quality Data”, OpenAQ Community Series	Mar 2020
Presenter, “Openly available air quality data: not just blue sky thinking”, The Impacts of Civic Tech Conference	Mar 2020

Presenter, “Casey”, Blue Ridge Labs Final Showcase

Oct 2019

Exhibitor, “The History of Civic Tech”, Code for America Summit

May 2019

## **LANGUAGES & TECHNOLOGIES**

---

Technical: JavaScript, Python, ArcGIS, AWS, Go, Android, Kotlin, C, React Native, Arduino, ImageJ

Linguistic: English, Telugu, French, Spanish, German