

## PROFILE SUMMARY

Siddhartha Roy is an environmental engineer and assistant professor, who works in the areas of water quality, corrosion chemistry, public health, international development, and environmental justice. He and his team's scientific and humanitarian relief work, with residents of Flint Michigan, helped uncover the Flint Water Crisis.

Nationalities: India (Citizen by birth); United States (Permanent resident: EB1-A "Extraordinary Ability").

## ACADEMIC HISTORY AND LICENSES

**Virginia Tech**, Blacksburg, VA

2018 *Ph.D. in Civil Engineering (emphasis: Environmental Engineering)*

2015 *M.S. in Environmental Engineering*

2014 *Interdisciplinary Water and Health Sciences Graduate Certificate*

**Nirma University**, Ahmedabad, India

2010 *B.Tech. in Chemical Engineering*

**State of Virginia**, Engineer in Training (EIT)

2020 *Environmental Engineering License #0420072931*

## EXPERIENCE

2024+ **Rutgers University, Department of Environmental Sciences** – New Brunswick, NJ  
*Assistant Professor (01/24)*

2022-23 **University of North Carolina, Gillings School of Global Public Health** – Chapel Hill, NC  
*Research Associate, UNC Water Institute (10/22 – 12/23)*

- Testing, monitoring, and sustainable remediation of [lead and toxic metals in rural drinking water systems](#) (borehole handpumps/mechanized) in Ghana, West Africa.
- Co-led a new global initiative to address lead in drinking water by 2040 alongside WHO, UNICEF, Hilton Foundation, World Vision, and WaterAid, among others. Co-author of the [Global Lead-Free Water Pledge](#) launched as part of the official UN [Water Action Agenda](#) at the UN 2023 Water Conference.

2012-22 **Virginia Tech, Dept. of Civil and Environmental Engineering** – Blacksburg, VA  
*Research Scientist (10/20 – 10/22)*

*Postdoctoral Research Associate (04/18 – 09/20)*

*Graduate Research and Teaching Assistant (11/12 – 02/18)*

- Student Leader and Communications Director, Flint Water Study Team: We used citizen science, open data sharing, field sampling, investigative journalism and social media to expose elevated waterborne lead and Legionella levels in the Flint Water Crisis. Our efforts led to declaration of a "Public Health Emergency" by President Obama, garnered over \$1.2 billion in relief, and informed the 2018 MI Lead and Copper Rule and the 2021 \$1 Trillion federal Infrastructure Bill (H.R. 3684).
- Exemplar water quality, health disparities and environmental justice projects:
  - a. water sampling in 300+ homes in Chicago (South Side) and 3 suburbs revealing harmful and persistent lead in drinking water ([Chicago Tribune front page](#));
  - b. timing and magnitude of [childhood water lead exposure](#) during the Flint crisis;
  - c. [miscarriages and stillbirths from lead exposure](#) in pregnant women;
  - d. [special education outcomes](#) and [psychological health harm](#) in Flint children;
  - e. [water lead sampling in public schools](#) in four states;
  - f. [citywide surveillance of chlorine in Flint's water](#) and decision tree to help homeowners protect themselves and their families from harmful bacteria.

- [PhD dissertation](#): Interplay of Water Chemistry and Entrained Particulates in Erosion Corrosion of Copper and Nonleaded Alloys in Potable Water Systems
- Mentored 17 students in research, publishing, and winning national awards.

2010-12 **Cognizant** – Pune, India

*Programmer Analyst (10/10 – 05/12)*

- Data analytics and business intelligence for Merck.

## AWARDS

2023 Obama Leaders USA Fellow, The Barack Obama Foundation

*(100 leaders across the United States)*

2021 STAT Wunderkind 2021, STAT News/The Boston Globe

*(early career heroes of science and medicine across North America)*

2020 Young Leadership Award 2020-22, International Water Association

*(global prize; first Indian and first US nominee)*

2018 Early Career Award for Public Engagement with Science Finalist, American Association for the Advancement of Science *(three scientists across the U.S. and E.U.)*

2017 Graduate Student of the Year, Virginia Tech *(university-wide)*

2015 Water Is Life Award, American Civil Liberties Union Michigan

*(For “your courage to shine a light on the Flint water crisis protecting the health of countless residents”)*

## PROFILES

- University of North Carolina at Chapel Hill (2023): [Safe Water for All](#)
- STAT News (2021): [Lessons from a Flint crisis researcher about building trust in science during the pandemic](#)
- International Water Association (2021): [Influential scientist wins IWA Young Leadership Award](#)
- American Institute of Chemical Engineers (2016): [Pursuing Science for the Public Good](#)

## TED TALK

- Science in service to the public good (<https://go.ted.com/Cyoi>), 1.6 million views

## SCIENTIFIC AND POPULAR SCHOLARSHIP

- Featured in *science documentaries* (3): PBS NOVA ‘Poisoned Water’ (on Netflix), Discovery, Virginia Tech
- *Media coverage* (60+): BBC, Chicago Tribune, NPR, Guardian, New York Times, WIRED
- *Public talks* (100+): World Health Organization, MIT, Northwestern, Princeton, Stanford, Georgetown, Middlebury, Tufts, Wesleyan, Notre Dame, Rutgers, UNC, UVA, UCLA, EU
- Executive producer of the *US Water Study* podcast ([iTunes](#)) and *science documentary series* ([YouTube](#)) to inspire high school and college students to pursue STEM education.
- [Guest essays](#) (11): CNN, American Scientist, Aeon, Undark, Scientific American, Retraction Watch
- *Science education workshops* (1,500+ US children): Kids’ Tech University (250+ middle school students), Governor’s School of VA, Salem City School, Phillips Exeter Academy, George Walton Academy, Episcopal High School, Alexandria City Public Schools, Academies of Loudoun.
- Total 20 [peer-reviewed scientific articles](#) (1212 citations), including in *Water Research*, *Environmental Science & Technology*, *Journal of Exposure Science & Environmental Epidemiology*, and *Journal of Water & Health*.
- *Research and data websites launched and curated*: [www.uswaterstudy.org](http://www.uswaterstudy.org), [www.flintwaterstudy.org](http://www.flintwaterstudy.org) (over 1 million visits).

## SERVICE

- U.S. Environmental Protection Agency “Social and Community Science” *Federal Committee* (2022-present).
- Co-organizer: US-Jordan forced displacement/Syrian refugee crisis conference (2019).
- *Instructor*: Six courses for water plant operators sponsored by VA Dept. of Health (2018-21).
- *Referee for 18 scientific journals* (2016+): American Journal of Public Health, BMJ Public Health, Environ. Sci. & Technology, Journal of Water & Health, Proceedings of the National Academy of Sciences, Water Research.