

# STEPHANIE CLELAND

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## EDUCATION

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**University of North Carolina at Chapel Hill, Gillings School of Global Public Health**, Chapel Hill, NC

PhD, Environmental Sciences & Engineering, expected May 2023

Master of Science in Public Health, Environmental Sciences & Engineering, expected May 2020

Graduate Certificate in Global Health, expected May 2020

*Advisors:* Dr. Marc Serre and Dr. Jason West

*Focus:* Environmental health, global health, space/time geostatistics & modeling, geospatial analysis, statistical analysis, environmental exposure assessment, health risk assessment

*Member:* The UNC Bayesian Maximum Entropy (BME) Lab  
The Climate Health and Air Quality (CHAQ) Lab

**Tufts University**, Medford, MA

Bachelor of Science in Computer Science and Community Health, May 2016

GPA: 3.64, Dean's List 7 of 8 semesters, *cum laude*

## WORK EXPERIENCE

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**Gillings School of Global Public Health, University of North Carolina** - Chapel Hill, NC

*Graduate Research Assistant, the CHAQ Lab*, August 2018 – present

- Research assistant on the NASA Health and Air Quality Applied Sciences Team (HAQAST) Tiger Team: Air Quality and Health Burden of 2017 California Wildfires
- Researching the air quality and acute health impacts of the October 2017 Northern California wildfires using space/time geostatistics, exposure modeling, and health risk assessment methods in MATLAB and Python
- Collaborating with researchers at multiple government agencies and academic institutions
- Presenting findings through poster presentations, oral presentations, and writing

*Teaching Assistant, Department of Environmental Sciences & Engineering*, August 2018 – May 2019

- Graded student assignments for 'Temporal GIS & Geostatistics' and 'Space/Time Exposure Mapping & Risk Assessment,' taught by Dr. Marc Serre

**athenahealth** - Watertown, MA

*Product Analytics Associate, athenaClinicals Performance & Analytics*, October 2017 – June 2018

- Supported multiple teams by developing metrics, running analyses, and synthesizing complex data to understand the performance, adoption, and usage of athenaClinicals to inform and solve business decisions and problems
- Performed data-driven research and analysis using Python, SQL, and Excel and applied knowledge of the internal database to drive strategic product development and client performance

*Product Management Associate, athenaClinicals Task Awareness*, September 2016 – October 2017

- Developed streamlined solutions and executed customer-centric projects to enhance clinicians' experience using documents and completing tasks in their patients' electronic health records
- Performed data-driven research and analysis and conducted end user interviews to inform feature requirements and understand feature usage

**Community Assessment of Freeway Exposure and Health (CAFEH) Study, Tufts University School of Medicine** - Boston, MA

*Research Assistant*, January 2016 – May 2016

- Conducted statistical analysis on air quality and blood biomarker data to test for associations between ultrafine particles and adverse health outcomes among the Puerto Rican community living near highways in Boston
- Summarized and presented findings through tables, visualizations, and writing
- Co-author: Brugge, D., et al. (2017). Lessons from in-home air filtration intervention trials to reduce urban ultrafine particle number concentrations. *Building and Environment*, 126, 266-275.

**Department of Computer Science, Tufts University** - Medford, MA

*Lab Leader & Head Teaching Assistant, Introduction to Computer Science*, January 2014 – May 2016

- Led multiple lab sections and taught and reinforced computer science concepts using C++
- Created and implemented training for new teaching assistants
- Held office hours and graded student projects
- Organized and led workshops to provide students with additional practice with course material

## AWARDS & HONORS

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**2019-2020:** The National Institute for Occupational Safety and Health (NIOSH) Traineeship; Best Student Poster: Community Modeling & Analysis System Conference; Triangle Global Health Annual Conference Student Scholarship

**2018-2019:** Weiss Urban Livability Fellowship; B.B. Parker Fellowship; Alan and Linda Rimer Endowed Scholarship; Gillings Merit Award

**2015-2016:** Best in Show: Tufts GIS Poster Expo; Grace Hopper Celebration Student Scholarship

## PUBLICATIONS & PRESENTATIONS

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Cleland, S., Serre, ML., Becker, J., DeLang, M., West, J. (2020, April). *Evaluating the acute health impact of PM<sub>2.5</sub> exposure during the October 2017 California wildfires*. Accepted for oral presentation at the 3rd International Smoke Symposium, Raleigh, NC.

Cleland, S., Serre, ML., Becker, J., DeLang, M., West, J. (2020, April). *Evaluating the air quality & acute health impacts of wildfire smoke during the 2017 California fires*. Abstract submitted for poster presentation at the 2020 NC BREATHE Conference, Charlotte, NC.

Cleland, S., Serre, ML., Becker, J., DeLang, M., West, J. (2019, October). *Fusing CMAQ with observations to estimate the air quality & health impacts of the October 2017 California wildfires*. Poster presented at the 18th Annual Community Modeling and Analysis System (CMAS) Conference, Chapel Hill, NC.

DeLang, M., Becker, J., Chang, KL., Cooper, O., Cleland, S., Schultz, M., Schroder, S., West, J., Serre, ML. (2019, October). *Mapping global surface ozone concentrations through the statistical fusion of observations and models*. Poster presented at the 18th Annual Community Modeling and Analysis System (CMAS) Conference, Chapel Hill, NC.

Cleland, S., Serre, ML., Becker, J., DeLang, M., West, J. (2019, October). *Estimating the hospital admissions attributable to the 2017 California wildfires*. Poster presented at the 2019 Triangle Global Health Annual Conference, Durham, NC.

Cleland, S., Serre, ML., Becker, J., DeLang, M., West, J. (2019, July). *Mapping the air quality & health impacts of the 2017 California wildfires*. Poster presented at the NASA Health and Air Quality Applied Sciences Team 6 (HAQAST6) Meeting, Pasadena, CA.

DeLang, M., Becker, J., Chang, KL., Cooper, O., Cleland, S., Collins, E., Serre, ML., West, J. *Mapping global surface ozone concentrations through the statistical fusion of observations and models using Bayesian Maximum Entropy*. Poster presented at the NASA Health and Air Quality Applied Sciences Team 6 (HAQAST6) Meeting, Pasadena, CA

Brugge, D., Simon, M. C., Hudda, N., Zellmer, M., Corlin, L., **Cleland, S.**, ... Durant, J. L. (2017). Lessons from in-home air filtration intervention trials to reduce urban ultrafine particle number concentrations. *Building and Environment*, 126. <https://doi.org/10.1016/j.buildenv.2017.10.007>

## SKILLS

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**Languages:** R, MATLAB, Python, SQL, C++, C, Java, HTML, CSS, Javascript

**Software:** Rstudio, MATLAB, ArcGIS, STATA, Jupyter, Adobe Creative Suite, Microsoft Office Suite

## RELEVANT COURSES

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**UNC-Chapel Hill:** Space/Time Exposure Mapping & Risk Assessment; Temporal GIS & Geostatistics; Statistics for Environmental Scientists; Urban Analytics in R; Health Effects of Environmental Agents; One Health; Critical Issues in Global Health; Environmental Crisis Management; Conceptualizing Public Health Solutions; Developing, Implementing, & Evaluating Public Health Solutions; Introduction to Epidemiology; Introduction to Biostatistics. *Spring 2020:* Environmental Epidemiology; Environmental Risk Assessment

**Tufts University:** Data Visualization; Introduction to GIS; Advanced GIS; Field Methods for Global Health; Water, Sanitation & Hygiene Seminar; Mobile Medical Devices & Apps; Introduction to Global Health

## VOLUNTEER EXPERIENCE

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**Environmental Sciences & Engineering Student Organization** - Chapel Hill, NC, August 2019 - present

- Graduate Student Representative, attend monthly faculty meetings

**Science Club for Girls** – Cambridge, MA, January 2017 – May 2018

- Mentor for hands-on after-school science club for second and third grade girls

**TEDxTufts** – Medford, MA, October 2014 – May 2016

- Founding member, organizer, and speaker coach for the independently organized TED event