

EDUCATION

- University of Virginia** Charlottesville, VA
Ph.D. in Civil and Environmental Engineering, Advisor: Leidy Klotz, Ph.D. 2017–Dec.2021
– Dissertation: Designer power and energy justice for large-scale infrastructure decision-making
- B.S. in in Civil and Environmental Engineering 2012–2017
– Thesis: Bio-inspired Self-Sensing Concrete

RESEARCH EXPERIENCE

- University of Virginia** Charlottesville, VA
Graduate Research Fellow (PI: Leidy Klotz, Ph.D.) 2017
– Uncovered research opportunities at the nexus of behavioral science, equity, and design of the built environment
– Investigated how perceived risks influence public opinions of climate adaptation measures.
– *Resulted in 7 publications (1 under review, 4 in progress), 6 presentations, and funded by NSF GRFP*
- Undergraduate Research Assistant(PI: Osman Ozbulut) Summer 2015, Fall 2016
– Embedded shape memory alloys and graphene nanoparticles into mortar to explore sensing and self-healing properties
– *Resulted in 2 poster presentations and an award for Best Group Project*
- Tuff Armenia Project
Civil Engineering Lead 2014-2017
– Designed a mortar with fine aggregate sourced from local Armenian tuff stone and tested to ASTM standards
– Researched affordable and efficient housing solutions for survivors of the 1988 Spitak earthquake
– Captured 360 virtual reality footage to increase awareness of the housing crisis among engineers
– *This student-led project resulted in 2 publications in student journals (1 first author), in 3 invited presentations, and was awarded over \$30,000 in research funding*

PUBLICATIONS

- Gordon, B.** (2020). How to Sustain Your Activism Against Police Brutality Beyond this Moment. *Behavioral Scientist*.
- Hobbs, S. R., **Gordon, B.**, Morton, E. V., Klotz, L. (2019). Black Women Engineers as Allies in Adoption of Environmental Technology: Evidence from a Community in Belize. *Environmental Engineering Science*.
- Klotz, L., Weber, E., Johnson, E., Shealy, T., Hernandez, M., **Gordon, B.** (2018). Beyond rationality in engineering design for sustainability. *Nature Sustainability*, 1(5), 225–233.
- Gordon, B.**, Genuario, K., Mayfield, L., Roca, S., Jones, M., Kha, L., Yacoubian, L. (2018). Restructuring Resilience: Sustainable housing solutions in Gyumri, Armenia. *Conflux Student Journal*.
- Yacoubian, L., Genuario, K., **Gordon, B.**, Mayfield, L., Roca, S., Jones, M., Kha, L. (2018). The Tuff Armenia Project. *The University of Virginia Jefferson Public Citizens Journal*.

6. **Gordon, B.**, Klotz, L. Risk Perceptions of Coastal Infrastructure in the United States. *Under review.*
7. **Gordon, B.**, Campbell, J., Klotz, L. Behavioral Science for Equitable Resilience: A Systematic Review. *In preparation.*
8. **Gordon, B.**, Klotz, L. Are designers less likely to improve equity when economic inequality is high? *In preparation.*
9. **Gordon, B.**, Klotz, L. Does envisioning an equitable future increase equity-centred design goals more than reflecting on past progress? *In preparation.*
10. **Gordon, B.**, Turner, S., Stenger, K., Hancock, P. What is the role of social justice in engineering education at the University of Virginia?: A case study. *In preparation.*

FUNDING

- NSF Graduate Research Fellowship Program (\$138,000) 2019–2021
- UVA Dean’s Fellowship (\$19,000) 2018 –2019
- UVA Distinguished Fellowship (\$32,000) 2017 –2018
- Jefferson Public Citizens Grant (\$20,000) 2017–2018
- UVA Center for Global Health Grant (\$10,000) 2017–2018

HONORS AND AWARDS

- People’s Choice Award, UVA ESE Graduate Research Symposium 2019
- The Raven Honor Society 2018
- UVA Dean’s Fellowship 2018 –2019
- UVA Engineering Distinguished Fellowship 2017–2018
- Summer Institute for Sustainability and Energy (SISE) Fellowship 2018
- 2nd Place, SISE Innovative Research Award 2013–2018
- Featured Speaker, Thornton Society Dinner 2017
- 1st Place, How to Change the World International Podcast Competition 2017
- Best Group Project Award, UVA Dept. of Civil and Environmental Engineering Capstone Symposium 2016

INVITED PRESENTATIONS

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| UC Berkeley Research Seminar Series
<i>Designer Power and Climate Justice for Energy Infrastructure Decision-Making</i> | Oakland, CA
December 2020 |
| Vecellio Construction Engineering and Management Graduate Student Seminar Series
<i>Designer Power and Community Engagement in a Construction Management Context</i> | Blacksburg, VA
December 2020 |
| Nature Sustainability, Two Years Later: Designing Behavior for Sustainability Panel
<i>Status Quo Bias and Climate Equity</i> | Charlottesville, VA
November 2020 |
| Guest Lecture, STS 3500: Matters of Race in Engineering and Technology
<i>The Designer-Bias Feedback Loop: Interrupting White Supremacy with Behavioral Science</i> | Charlottesville, VA
October 2020 |
| Engineering Sustainability
<i>Risk Perceptions of Coastal Infrastructure</i> | Pittsburgh, PA
April 2019 |

UVA ESE Graduate Research Symposium <i>Risk Communication and Coastal Infrastructure</i> – People’s Choice Award.	Charlottesville, VA February 2019
Guest Lecture, STS 2500: Responsible Innovation <i>Behavioral Science, Sustainability, and Engineering</i>	Charlottesville, VA October 2018
Community Engagement Practices and the Adoption of Green Technology <i>Loss aversion in Physical Decisions-Making Under Risk</i>	Charlottesville, VA February 2018
GEM National Consortium and American Society for Engineering Education <i>Loss aversion in Physical Decisions-Making Under Risk</i>	Washington, DC January 2018
UVA Center for Global Health Fall Research Symposium <i>Restructuring Resilience: Sustainable Housing Solutions in Gyumri, Armenia</i>	Charlottesville, VA October 2017
UVA Thornton Society, Featured Speaker <i>Seizing Opportunities for Self-Guided Undergraduate Research</i>	Charlottesville, VA October 2017
National GEM Consortium Annual Meeting <i>Virtual reality for humanitarian applications in Gyumri, Armenia</i>	New York City, NY September 2017
Armenian General Benevolent Union <i>Voices from the Domiks: Interviews with Gyumri Residents</i>	Yerevan, Armenia July 2017
UVA Dept. of Civil and Environmental Engineering Capstone Symposium <i>Bio-inspired Self-Sensing Composites for Civil Structures</i> – Best Group Project Award.	Charlottesville, VA December 2016
MATS-UTC Symposium <i>Flexural strength of shape memory alloy reinforced mortar</i>	Charlottesville, VA July 2015

TEACHING AND MENTORING

- **Creator and Instructor** of Engineering Social Justice (CE 4500/SYS4501) January 2021
University of Virginia
 - Designed a pedagogically-informed course to prepare engineers to confidently and respectfully engage with social justice issues in their careers.
 - Will be the primary instructor for an advanced undergraduate course during 2021 January Term.
 - This course is a product of the Course Design Institute at UVA.
- **Guest Lecturer** for Matters of Race in Engineering and Technology (STS 3500) October 2020
University of Virginia
 - Will teach a 90-minute interactive class for 15 students about the legacies of white supremacy in the built environment and the behavioral science implications of that legacy.
- **Panelist** for Diversity in STEM Colloquium August 2020
University of Virginia
 - Presented a 10-minute talk about how meritocratic ideologies and depoliticization of engineering topics contributes to engineering’s diversity problem.
- **Panelist** for Navigating Advisor Expectations in Graduate School Luncheon August 2020
University of Virginia

- Answered questions and discussed advisor expectations with 2 faculty members and another graduate student for a group of underrepresented graduate students.
- **Teaching Assistant** for Water for the World (CE 3100) Fall 2018
University of Virginia
 - Taught during weekly office hours and provided written feedback on graded assignments for 70-students.
- **Guest Lecturer** for Responsible Innovation (STS 2500) October 2018
University of Virginia
 - Taught a 90-minute class about behavioral science and sustainability in engineering to a class of 50 students. After a brief lecture, students completed an activity that allowed them to identify common biases in their own thinking.

LEADERSHIP AND SERVICE

- Engineering Graduate Student Selections Chair, Raven Society 2020–2021
The Raven Society is an honor society at the University of Virginia. I am organizing the nomination and selection process for the engineering graduate students for the 2020-2021 academic year.
- Editorial Board Coordinator, 500 Women Scientists National Leadership Team 4.2019–12.2019
I managed a board of over 100 volunteer editors and made connections between writers and editors with similar interests.
- Charter Committee, UVA Engineering Systems and Environment Graduate Student Council 2018 –2019
I co-wrote the charter to form a graduate student council in my department. The council was created to provide avenues for graduate student engagement, increased inclusion, and department cohesion.
- Department Representative, Graduate Student Society of Women Engineers 2018 –2019
I communicated events to students in the department and recruited faculty to speak at events.
- Steering Committee, Bread and Roses Food Justice Non-profit 2017 –Current
Planning and maintaining a garden that provides vegetables for the surrounding community.
- Graduate Mentor, UVA Center for Diversity in Engineering 2017 –2018
I held consistent office hours, where students could ask me about graduate school, their coursework, and a variety of other topics.
- Workshop Leader, She Started It STEM Day 2017 and 2018
I helped start a chapter of the American Concrete Institute at the University of Virginia. I served as president the first year and treasurer the second year.
- Chapter Executive Officer, National Society of Black Engineers 2012 –2016
I served in a variety of executive officer roles for the University of Virginia Chapter of NSBE as an undergraduate.