

Lelia Hampton

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Education

Massachusetts Institute of Technology	Cambridge, MA
Doctor of Philosophy in Electrical Engineering and Computer Science	2020-2025
Master of Science in Electrical Engineering and Computer Science	2020-2022
Spelman College	Atlanta, GA
Bachelor of Science in Computer Science Major, 3.89/4.0, Summa Cum Laude	2016-2020
Comparative Women's Studies and Mathematics Minor	
Pontificia Universidad Católica Madre y Maestra, 4.0/4.0	Santiago, DR
Council on International Educational Exchange Program	May 2019

Relevant Coursework

Machine Learning (6.867 MIT Fall 2020), Data Science, Artificial Intelligence, Environmental Science, Calculus I, Calculus II, Linear Algebra, Discrete Mathematics, General Statistics, Numerical Analysis, Introduction to Women's Studies, Feminist Theory, Gender and Health in Cross Cultural Perspectives, Independent Women's Studies

Relevant Skills

Proficient in Python and its pandas and pyspark packages. Course experience with scikit-learn, numpy, pytorch.

Research Experience

Massachusetts Institute of Technology • Media Lab	June 2019 to August 2019
Summer Research Program Intern (~8% Acceptance rate)	
<ul style="list-style-type: none">• Led research on an in situ water observation system to monitor growth of an invasive species• In less than two months, I was able to integrate a new sensor into the hardware, switch the microprocessors from a microprocessor with no wireless connectivity capabilities to wirelessly transmit data, integrate cloud storage to ensure data persists, increase the efficiency of the sensor's firmware, and increase the lifetime of the sensor from 3 hours to 2 weeks through engineering design.	
Clara Boothe Luce Scholar Program	September 2018 to May 2019
<ul style="list-style-type: none">• Performed research on the use of Black music as a culturally relevant pedagogical tool to teach African American female students the concept of recursion• Formulated several literature reviews, performed data analysis for experiments, prepared the Institutional Review Board application, wrote the abstract, and presented the research to Spelman College	
Microsoft Research	May 2018 to August 2018
Undergraduate Research Intern	
<ul style="list-style-type: none">• Performed research in human-computer interaction in the Productivity Group and Information and Data Sciences Group at the intersections of attention, productivity, and work meetings through the use of a chatbot with Shamsi Iqbal and Paul Bennett• Formulated a literature review, wrote a survey, analyzed quantitative and qualitative data from the survey, and developed and tested the chatbot	
Culturally Relevant Computing Lab • Morehouse College	November 2017 to May 2019
Research and Development Intern	
<ul style="list-style-type: none">• Developed a robust Twitter conversational agent that answers questions about graduate school in order to address the underrepresentation of African Americans in the computer science professoriate	

Peer-Reviewed Journal and Conference Publications

1. **Lelia Hampton** and Jennifer Blessing. 2021. Federal and Local Law Enforcement Use of Facial Recognition Technologies. MIT Science Policy Review. To appear.
2. **Lelia Hampton**. Survey of Predictive Criminal Justice Algorithms. In submission to the 2021 AAAI/ACM Conference on Artificial Intelligence, Ethics, and Society.

3. **Lelia Hampton.** On Ethics Dumping and Postcolonialism. In submission to the 2021 AAAI/ACM Conference on Artificial Intelligence, Ethics, and Society.
4. **Lelia Hampton.** Black Feminist Musings on Algorithmic Oppression. 2021. ACM Conference on Fairness, Accountability, and Transparency. To appear.
5. David James and **Lelia Hampton.** 2020. Using Black Music as a Bridge to Understanding Introductory Programming Concepts. IEEE Research on Equity & Sustained Participation in Engineering, Computing, and Technology '20.
6. Danielle Wood, Fohla Mouftaou, Temilola Fatoyinbo-Agueh, David Lagomasino, Eric Ashcroft, Ufuoma Ovienmhada, **Lelia Hampton**, Lisa Orie, TojumiOluwa Adegbayegbe, Anisha Nakagawa, and Juliet Wanyiri. 2019. Co-Designing an Environmental Observatory to Support Eco-Entrepreneurship in Benin. American Geophysical Union.
7. **Lelia Hampton**, Robert Cummings, and Kinnis Gosha. 2019. Improving Computer Science Instruction and Computer Use for African American Secondary School Students: A Focus Group Exploration of Computer Science Identity of African American Teachers. In Proceedings of the 2019 on Computers and People Research Conference (SIGMIS-CPR '19). ACM, New York, NY, USA, 78-84.
8. **Lelia Hampton** and Kinnis Gosha. 2018. Development of a Twitter graduate school virtual mentor for HBCU computer science students. In Proceedings of the ACMSE 2018 Conference (ACMSE '18). ACM, New York, NY, USA, Article 42.

Workshop Papers

1. **Lelia Hampton.** Black Feminist Musings on Algorithmic Oppression. Resistance AI at NeurIPS 2020.
2. **Lelia Hampton.** Machine Learning Informed Policy for Environmental Justice in Atlanta with Climate Justice Implications. Climate Change AI at NeurIPS 2020.
3. Jaye Nias, **Lelia Hampton**, Princess Sampson, and Margie Ruffin. Decolonizing Technologies for Preserving Cultural and Societal Diversity. Engaging Race in CHI Workshop at ACM SIGCHI 2020.

Presentations and Talks

1. "Best Practices for Beginning a Career in Tech" with Thulani Vereen for Jopwell's Virtual Career Fair
2. Design of a Low-Cost Water Quality Sensor Kit to Monitor Ecosystem Health in Benin. 35th Annual MIT Summer Research Program Symposium. August 8, 2019.
3. Design of a Low-Cost Water Quality Sensor Kit to Monitor Ecosystem Health in Benin. MIT Summer Research Program Intern Presentations. MIT Media Lab. August 5, 2019.
4. Using Black Music as a Culturally Relevant Approach to Engage African American Women College Students in Computer Science. Spelman College Research Day 2019. April 26, 2019.
5. Employment Discrimination as a Driver to Survival Sex Work for Trans Women. Spelman College Research Day 2018. April 27, 2018.

Professional Experience

Georgia Tech Research Institute • Electronic Systems Laboratory
Student Co-op

January 2018 to May 2018

- Developed software for system analysis, process control, and data acquisition in C and C++
- Managed the creation of PC applications, design, fabrication and testing of digital hardware
- Gained hands on experience in Linux, networking and operating systems

National Aeronautics and Space Administration • Marshall Spaceflight Center
Systems Engineer Intern

May 2017 to August 2017

- Managed databases using metadata, data conversion, and data cleansing for SLS data

Awards, Honors, and Fellowships

MIT Technology and Public Policy Hackathon Finalist (Fall 2020)

MIT Ashar Aziz (1981) Presidential Fellow (2020)

Alfred P. Sloan Scholar (2020-2025)
Phi Beta Kappa (Spring 2020)
Ford Foundation Fellowship Honorable Mention (Spring 2020)
Dean's List (Spring 2017, Spring 2018, Fall 2018, Spring 2019, Fall 2019, Spring 2020)
Spelman College Academic Dean's Scholarship (2016-2020)
Thurgood Marshall College Fund Department of Defense Scholar (2016-2020)
Clara Boothe Luce Scholar (2018-2019, 2019-2020)
Grace Hopper Conference Scholar (2018)
ACM Tapia Scholar (2018 and 2019)
Upsilon Pi Epsilon Computing Honor Society (Fall 2018)

Teaching

Teaching Assistant • Operating Systems	Spring 2020
• Selected to provide support to 20 students and guide students on homework and lab assignments	
Teaching Assistant • Computer Organization and Design	Fall 2019
• Selected to provide support to 20 students and guide students on homework and lab assignments	
Teaching Assistant • Computer Science I in Python	Spring 2017
• Selected to provide support to 30 students and prepare lessons/worksheets for Python introduction	

Selected Community Outreach

MIT Graduate Application Assistance Program Executive Board	Fall 2020 to present
• Organized and hosted webinars and for applicants and prospective students	
• Mentored underrepresented minority applicants to strengthen their application	
MIT GradDiversity Ambassador	Fall 2020 to present
• Partnered with OGE GradDiversity to create a more diverse, equitable, and inclusive community at MIT.	
NSBE Virtual Career Fair	August 2020
• Recruited on behalf of MIT's Office of Graduate Education (OGE)	
Black Girls CODE	October 2016 to Present
• Served as a teaching instructor for various workshops, including Robotics, Game Jam, and Virtual Reality	
Georgia Tech Catalyst	April 2019
• Provided technical support during lessons for underrepresented high school students interested in pursuing computing	
CodeHouse 2019	April 2019
• Guided middle school students during a day of computing exposure	