

Candace Ross

Contact

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Education

- 2015–Present **Massachusetts Institute of Technology**, Ph.D. Student, 2015.
Currently pursuing M.S. and Ph.D in Computer Science
- 2013–2015 **Howard University**, B.S., Summa Cum Laude, 2015.
Computer Engineering
- 2011–2013 **United States Naval Academy**.
Computer Engineering, completed 59 hours before transfer

Research Experience

- June 2015–
Present **Massachusetts Institute of Technology**, *Cambridge, MA*.
I am currently working on novel approaches to planning, a classical artificial intelligence problem. In my approach, I use computer vision techniques and natural language processing to build models grounded in perception.
- June–August
2014 **Harvard University**, *Boston, MA*.
Through the MIT Summer Research Program (MSRP), which accepts 40 undergraduate students from university across the U.S., I spent my summer in the lab of Dr. Gabriel Kreiman. I investigated how to quantify and predict episodic memory recall. I collected and modeled quantitative data on participants' memory recollection of 40-minute television episodes. I also used machine learning to predict their memory recall based on features of the TV episodes. The work was interdisciplinary, utilizing psychophysics, machine learning, and human cognition.
- 2013–2015 **Army Research Laboratory**, *Adelphi, MD*.
I worked with the Multi-Lingual Computing group to extract social meaning from manually-gathered corpora. The corpora was hand-annotated data from social media accounts of persons in Tanzania and Kenya, containing both English and Swahili text. I investigated our ability to uncover social patterns of the account holders using machine learning and qualitative analyses.
- May–July
2013 **Carnegie Mellon University**, *Pittsburgh, PA*.
I used quantitative and qualitative methods to extract social meaning text containing proper English and "slang". The data was a corpus we collected from a gang forum, where the majority of users identified their gang affiliation and geographic region. Given the meta-data on the users and their posts, we used machine learning to predict the gang affiliation and regional identities of members on the forum.

Awards/Honors

- 2017- **Ford Foundation Predoctoral Fellow**.
- 2017- **National Science Foundation Graduate Research Fellow**.
- 2017 **Graduate Women of Excellence Awardee**, *Massachusetts Institute of Technology*, Cambridge, MA.
- 2015 **Lemelson Engineering Presidential Fellowship**, *Massachusetts Institute of Technology*, Cambridge, MA.
The Lemelson Engineering Presidential Fellowship is fellowship that selects around 120 incoming graduate students across the institute each year. I was nominated by MIT's Electrical Engineering and Computer Science Department to receive the one-year fellowship.

- 2015 **Office of the Dean of Graduate Education Diversity Fellowship**, *Massachusetts Institute of Technology*, Cambridge, MA.
This one-year fellowship, which is geared toward graduate students from under-served groups, is given to students nominated by their graduate department. I was nominated by MIT's Electrical Engineering and Computer Science Department.
- 2013-2015 **College Qualified Leaders (CQL) Student**, *Army Research Laboratory*, Adelphi, MD.
This DoD-funded program selects undergraduate students to participate in research in a government lab with a direct research mentor. The goal is for students to become engaged in research and seek ways to advance the field of science research after completing Bachelor's degrees. I was nominated by the Multi-Lingual Computing Group at the Army Research Laboratory (ARL) and was accepted by the CQL program to work at ARL.
- 2013-2015 **Trustee Tuition Scholarship for Engineering and Architecture**, *Howard University*, Washington, D.C..
The Trustee Scholarship is an institution-wide scholarship awarded on a merit-basis within schools and colleges at Howard University. I was awarded this scholarship during my semester at Howard University and was renewed for the scholarship each semester.

Organizations & Activities

- 2016-Present **Working Group for the MIT Academic Council**, *Massachusetts Institute of Technology*, Cambridge, MA.
This working group is a subset of MIT's Academic Council. The working group contains high-level administration including, among others, the Vice-President, the Institute Community and Equity Officer, the Chancellor and the for Student Life. As one of two graduate students in the group, I provide a student's perspective on topics (e.g. diversity, outreach, addressing student and staff proposals, etc.).
- 2016-Present **President of Black Graduate Student Association**, *Massachusetts Institute of Technology*, Cambridge, MA.
Our organization seeks to unify the community of black graduate students on campus, as well as to organize events for the broader MIT community. As president, I coordinate events within the MIT community and serve as the liaison between the graduate students of color and higher level MIT administration. For instance, we hold our monthly Community Lunch Series open to the entire MIT community where we invite leaders of color to share their journey working in the Boston area. Another example of events we have held are workshops on allyship and implicit bias.
- 2016-Present **Graduate Resident Tutor**, *Massachusetts Institute of Technology*, Cambridge, MA.
Graduate resident tutors (GRTs) serve as live-in mentors for the undergraduate community. I am a GRT for Chocolate City, which is a community of 30 undergraduate men of color. I aim to provide personal and academic support for the students to strengthen their experience at MIT.
- 2016-Present **MIT Summer Research Program Mentor**, *Massachusetts Institute of Technology*, Cambridge, MA.
Each summer, I mentor 1-2 undergraduate students who are conducting research in the MIT Summer Research Program (MSRP). This mentorship includes meeting weekly to aid in graduate and fellowship applications and providing guidance to having a successful summer of research. These students are primarily from under-represented groups, including racial and gender minorities, low-income families, and colleges without research opportunities. As a mentor, I provide support for these students on their path to graduate school.
- 2015-Present **Recruiting for Center for Brains, Minds and Machines**, Based in Cambridge, MA.
The Center for Brains, Minds and Machines (CBMM) is a multidisciplinary NSF-funded science and technology center. I am one of the graduate students in a lab that is a member of CBMM. Outside of research, I attend minority-serving undergraduate research conferences to recruit on under-served undergraduates to apply for CBMM's summer program.

2014-2015 **President, Institute of Electrical and Electronics Engineers**, *Howard University*, Washington, D.C..

I worked to rebuild our organization, which for multiple years had not held any major events and was essentially inactive. During my tenure, we held our first bi-monthly events for the engineers on campus, including game nights and fundraisers. I also encouraged students to participate in IEEE regional events. For the first time, we had Howard University students accepted to present their research to a regional IEEE conference.

2013-2015 **Division I Women's Lacrosse**, *Howard University*, Washington, D.C..

I played for the Howard University women's lacrosse team. In addition to our daily practices and games, we participated in community outreach. Each year, we hosted the Harlem Girls Lacrosse team, which was about 40 middle school players. We held a lacrosse clinic, followed by a discussion about ways to prosper academically to pursue college level lacrosse.

2011-2013 **National Society of Black Engineers (NSBE)**, *United States Naval Academy*, Annapolis, MD.

The National Society for Black Engineers (NBSE) sought to bring together engineers of color to uplift one another at the university and to encourage young students to find an interest in STEM. Each year, I participated in A Walk for Education, which included walking door-to-door in Annapolis to share information about STEM, SAT preparation, college applications, and financial aid. In addition to the walk, I participated in monthly tutoring sessions through our partnership with the Benjamin Banneker Honors Mathematics and Science Society for local elementary and middle school students.