

SHANDLER A. MASON

DOCTORAL CANDIDATE | COMPUTER SCIENCE | NC STATE UNIVERSITY

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Education

North Carolina State University

2022–Expected 2026

Ph.D. in Computer Science

Dissertation: *The Human Side of Software Engineering: Bridging Societal Barriers and Technological Design*

Advised by Dr. Sandeep Kaur Kuttal

North Carolina State University

2022–2024

M.S. in Computer Science

North Carolina Agricultural and Technical State University

2018–2022

B.S. in Computer Science (with **Highest Distinction**)

Minor: Applied Mathematics

The Honors College

The Governor's STEM Academy

2014–2018

Advanced Studies Diploma

Track: Programming and Software Development

Appointments

North Carolina State University (NC State)

Raleigh, NC

Graduate Research Assistant, Fall 2023, Spring 2024, Fall 2024, Fall 2025

Graduate Teaching Assistant, Spring 2025, Spring 2026

North Carolina Agricultural and Technical State University (NC A&T) Greensboro, NC

Undergraduate Teaching Assistant, Fall 2021, Spring 2022

Industry Experience (8)

The Aerospace Corporation

Crystal City, VA

Graduate Intern III, Center for Space Policy and Strategy, Summer 2025

Graduate Intern II, Software Systems and Acquisition, Summer 2024

Graduate Intern I, Software Systems and Acquisition, Summer 2023

Graduate Intern BS, Software Systems and Acquisition, Summer 2022

Target Corporation

Remote

Software Engineering Intern, Target Tech Space, Summer 2021

The New York Times

Remote

Software Engineering Intern (Mobile Applications), NYT Games Team, Summer 2020

Facebook

Menlo Park, CA

Facebook University Engineering Intern (Mobile Applications), Summer 2019

BBG Inc. — Innovative Technology Solutions

Chesapeake, VA

Electronics Manufacturing Intern, Summer 2017

Scholarships and Grants (Total = \$138,620)

Award	Organization	Amount	Year
IEEE VL/HCC Travel Grant	National Science Foundation (NSF)	\$866	2025
UNC Campus Scholarship	NC State Graduate School	\$2,500	2025
Diversity Enhancement Grant	NC State Graduate School	\$1,000	2024
Grad Cohort Workshop Travel Grant	Computing Research Association (CRA)	\$785	2024
Diversity Enhancement Grant	NC State Graduate School	\$450	2023
Conference Travel Grant	NC State College of Engineering	\$1,000	2023
Graduate Enhancement Grant	NC State College of Engineering	\$2,850	2023
Federal Civilian Employee Scholarship	First Command Educational Foundation	\$1,000	2023
Grad Cohort Workshop Travel Grant	Computing Research Association (CRA)	\$785	2023
Student Travel Grant	GEM Fellowship	\$500	2023
Diversity Graduate Assistance Grant	NC State Graduate School	\$800	2023
Graduate Merit Grant	NC State College of Engineering	\$4,000	2023
National GEM Consortium Fellowship	NC State and The Aerospace Corporation	\$16,000	2022
Provost's Doctoral Fellowship	NC State Office of the Provost	\$31,200	2022
Graduate Scholarship	Virginia Commonwealth University	\$12,618	2022
College of Engineering Scholarship	NC A&T	\$3,750	2022
Engineering Scholarship	Duke Energy and NC A&T	\$2,500	2021
Aggie Summer School Scholarship	NC A&T	\$3,516	2021
Engineering Program Scholarship	NC A&T College of Engineering	\$8,000	2020
Engineering Program Scholarship	NC A&T College of Engineering	\$5,000	2019
Aggie Merit Scholarship	NC A&T	\$30,000	2019
Aggie Merit Scholarship	NC A&T	\$8,000	2019
Aggie Merit Scholarship	NC A&T Computer Science	\$1,000	2018
Travel Grant	NCWIT	\$500	2017

Awards and Recognitions

1. **Carla Savage Award**, NC State Computer Science, 2025
Awarded as the top Ph.D. student in the department for excellence in research and service contributions.
2. **From Theory to Nia (Purpose) Award**, NC State African American Cultural Center, 2025
Awarded as top graduate student at the university level for community-engaged scholarship.
3. **National GEM Consortium Fellowship Award**, NC State and The Aerospace Corporation, 2022
Awarded nationally for academic excellence and potential in STEM research.
4. **University Provost's Doctoral Fellowship Award**, NC State Office of the Provost, 2022
Awarded as top incoming Ph.D. student across the university for promise, achievement, and potential.
5. **Namaskar Award Nominee**, NC A&T Computer Science, 2022
Awarded as top undergraduate student in department for exemplary growth and performance.
6. **Miss Association for Computing Machinery (ACM) Recognition**, NC A&T, 2020-2021
Recognized for leading a community mentorship program encouraging 50 students to pursue computing.

7. **Management Leadership for Tomorrow Career Preparation Recognition**, NC A&T, 2020
Recognized nationally for interest in technology and commitment to advancing computing.
8. **PwC Innovation Challenge First Place Award Winner**, NC A&T Computer Science, 2020
Awarded first place for creating an innovative project to support minority communities.
9. **National Center for Women & Information Technology (NCWIT) Award**, 2017
Awarded nationally in K-12 for aptitude, interest, and leadership in computing.

Research

Integrating human-computer interaction, software engineering, human factors, and policy to uncover societal barriers and influence equitable software.

PEER-REVIEWED PUBLICATIONS

- [P1] **Mason, S. A.**, & Kuttal, S. K. (2025). *The Hidden Burden: Insights Into Women's Lived Experiences In Computing*. IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC), pp. 290–296.
- [P2] **Mason, S. A.** (2025). *RemoteCollabEval: An Inspection Method for Evaluating Interpersonal Tensions in Remote Tools*. IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC), pp. 422-423. (**Doctoral Graduate Consortium**)
- [P3] **Mason, S. A.**, & Kuttal, S. K. (2025). *Analyzing Gender-Based Dynamics in Remote Pair Programming Interactions*. IEEE/ACM 6th Workshop on Gender Equality, Diversity, and Inclusion in Software Engineering at International Conference on Software Engineering (GE ICSE), pp. 41–44.
- [P4] **Mason, S. A.**, Lenham, H., & Kuttal, S. K. (2025). *Breaking the Silos: An Actionable Framework for Recruiting Diverse Participants in SE*. IEEE/ACM International Conference on Software Engineering: Software Engineering in Society (ICSE SEIS), pp. 25-36.
- [P5] Kuttal, S. K., Hart, J., Ensley, M., & **Mason, S. A.** (2025). *Pair Programming in the Lab vs. Wild: A Qualitative Analysis of Creativity Strategies and Dialogue Styles for Agent Training Data*. International Conference on Human-Computer Interaction (HCII), pp. 198–218.
- [P6] **Mason, S. A.**, & Kuttal, S. K. (2024). *Diversity's Double-Edged Sword: Analyzing Race's Effect on Remote Pair Programming Interactions*. ACM Transactions on Software Engineering and Methodology (TOSEM), pp. 1–45. (**Journal-First; Presented at ICSE**)
- [P7] **Mason, S. A.**, Nain, S., & Kuttal, S. K. (2024). *Bridging Perspectives: Unveiling Racial Dynamics in Remote Pair Programming Communication*. International Conference on Human-Computer Interaction (HCII), pp. 275–291.
- [P8] Hart, J., AuBuchon, J., McAuliffe, A., **Mason, S. A.**, & Kuttal, S. K. (2024). *Navigating NLU Challenges in Pair Programming Agents: A Study on Data Size, Gender, Language, & Domain Effects*. International Conference on Human-Computer Interaction (HCII), pp. 356–375.
- [P9] **Mason, S. A.**, & Kuttal, S. K. (2023). *Investigating Interracial Pair Coordination During Remote Pair Programming*. IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC), pp. 260–262.

PUBLICATIONS (IN SUBMISSION)

- [P10] **Mason, S. A.**, & Kuttal, S. K. (2026). *Equity by Design: A New HCI Method for Surfacing Inclusivity Gaps in Remote Collaboration Software*. In preparation for ACM Designing Interactive Systems (DIS).
- [P11] **Mason, S. A.**, Meuser, N., Si, A., Sthapit, S., Leon, S., Teke, M., & Kuttal, S. K. (2026). *Who's Left Out? A Case Study on Promoting Equitable Participation in Remote Collaboration Software*. Under review at International Conference on Human-Computer Interaction (HCII).
- [P12] Teke, M., **Mason, S. A.**, Heichman, R., & Kuttal, S. K. (2026). *Two Heads (with an Agent) Are Better: PairEquity for Reflective Remote Pair Programming*. In preparation for ACM Designing Interactive Systems (DIS).
- [P13] Sthapit, S., Bae, S., Lenham, H., **Mason, S. A.**, Barnes T., & Kuttal, S. K. (2026). *Reimagining Information Foraging Theory: From Solitary Practices to Team-Based Virtual Collaboration*. In preparation for International Journal of Human-Computer Interaction (IJHCI).

WORKSHOP ORGANIZER

- [W1] **Mason, S. A.**, & Kuttal, S. K. *Designing for Everyone: Advancing User Experience Through Human-Centric Design Methodologies*, Full-Day, IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC), Raleigh, NC, USA, October 2025.
- [W2] **Mason, S. A.**, & Kuttal, S. K. *Designing for Inclusivity: Advancing User Experience Through Inclusive Design Methodologies*, Half-Day, International Conference on Human-Computer Interaction (HCII), Gothenburg, Sweden, June 2025.

SHOWPIECE PRESENTATIONS

- [S1] **Mason, S. A.**, & Kuttal, S. K., *Equity by Design: A New HCI Method for Surfacing Inclusivity Gaps in Remote Collaboration Software*, **Applied AI in Engineering & Computer Science Symposium** at NC State College of Engineering, Raleigh, NC, October 2025.
- [S2] **Mason, S. A.**, & Kuttal, S. K. *RemoteCollabEval: An Inspection Method for Evaluating Interpersonal Tensions in Remote Tools*, IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC), Raleigh, NC, October 2025.
- [S3] **Mason, S. A.**, & Kuttal, S. K., *Investigating Interracial Pair Coordination During Remote Pair Programming*, IEEE Symposium on Visual Languages and Human-Centric Computing (VL/HCC), Washington, DC, October 2023.

MEDIA COVERAGE

- [M1] **Mason, S. A.** (2025). “Congratulations to the Spring 2025 Carla Savage Award Winners.” *NC State CSC News*. [\[Link\]](#)
- [M2] Menzies, T., Geddam, R., Ramesh, A. K., Jayesh, K., Varma, S. K., & **Mason, S. A.** (2022). “Making the Pitch!” *NC State CSC News*. [\[Link\]](#)
- [M3] Correa, M., Lu, S., Kim, J., Erjavec, N., Shaiva, R., & **Mason, S. A.** (2020). “Design, Prototype, Zoom: How New York Times Interns Built a Game Remotely.” *New York Times Open*. [\[Link\]](#)

Teaching and Service

*Supporting instruction in **human-computer interaction, software engineering, and introductory programming** courses.*

Courses at NC State (2)

- | | |
|---|---------------------|
| 1. CSC 454/554: Human-Computer Interaction, <i>Teaching Assistant</i> , Spring 2026 | 100 <i>expected</i> |
| 2. CSC 454/554: Human-Computer Interaction, <i>Teaching Assistant</i> , Spring 2025 | 108 students |

Courses at NC A&T (2)

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|--|-------------|
| 3. COMP 410: Software Engineering, <i>Teaching Assistant</i> , Spring 2022 | 20 students |
| 4. COMP 163: Introduction to Computer Programming, <i>Teaching Assistant</i> , Fall 2021 | 20 students |

MENTORSHIP

Graduate (4)

- Maowen Huang, CSC 591/791: Programmer-Centered Design and Research (Fall 2025)
- Saba Khanmohammadi, M.S. Computer Science (Fall 2025)
- Manali Teke, M.S. Computer Science (Fall 2024, Spring 2025, Fall 2025)
- Raphael Phillips, M.S. Computer Science (Summer 2023)

Undergraduate (6)

- Hank Lenham, NSF REU (Summer 2024, Fall 2024, Spring 2025)
- Hannah Estes, NC State Student Worker (Spring 2024)
- Brennen Farrell, NC State REU (Spring 2024)
- Sanket Nain, NC State REU (Fall 2023, Spring 2024)
- Natalie Meuser, NSF REU (Summer 2023)
- Senior Design Project Team, CSC 492: Senior Design Project (Fall 2023)

High School (1)

- Taquan Dewberry (Summer 2023)

INTERNATIONAL RESEARCH COMMUNITY SERVICE

- **Workshops and Tutorials Co-Chair**, IEEE VL/HCC Organizing Committee, 2026
- **Publicity and Social Media Co-Chair**, IEEE VL/HCC Organizing Committee, 2025
- **Session Chair**, IEEE VL/HCC, 2025

INSTITUTIONAL SERVICE

- **Graduate Liaison**, NC State Code Black, 2025
- **Speaker**, “*So, You Want to Be an Engineer?*” NC A&T and The Aerospace Corporation, 2024
- **Vice President**, ACM NC A&T Chapter, 2019–2020

- **College of Engineering Senator**, NC A&T Student Government Association, 2018–2019
- **Committee Chair**, Alpha Kappa Alpha Sorority, Incorporated® 2020–2022
- **Assistant Membership Intake Chair**, Alpha Kappa Alpha Sorority, Incorporated® 2020–2022
- **Assistant Secretary**, Alpha Kappa Alpha Sorority, Incorporated® 2020–2022
- **Dean Office Volunteer**, NC A&T College of Engineering, 2018–2020
- **Department Office Volunteer**, NC A&T Computer Science, 2018–2020
- **Library Volunteer**, Chesapeake Public Library, 2016–2018

ORGANIZATIONS

- **Member**, Institute of Electrical and Electronics Engineers (IEEE), 2025
- **Elected Member**, Upsilon Pi Epsilon International Honor Society, 2021–2022
- **Elected Member**, Alpha Lambda Delta National Honor Society, 2019–2020

References

Dr. Sandeep Kaur Kuttal

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