# Makayla Moster

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## Research Interests

Computer Science Education, Software Engineering Education, Remote/Hybrid Learning, Remote/Hybrid Work, HCI

## Education

**Clemson University** — Clemson, SC
Ph.D. Candidate in Computer Science — August 2019 – Present
Advisor: Dr. Paige Rodeghero

**Clemson University** — Clemson, SC
Graduate Certificate, Engineering and Science Education — December 2022

**Clemson University** — Clemson, SC
M.S. in Computer Science — May 2021

**University of North Carolina Wilmington** — Wilmington, NC
B.S. Honors in Computer Science, concentration in Digital Arts — May 2019
Magna Cum Laude — GPA: 3.886
Thesis: "Conforming Realistic, Procedural Tree Models to User-Drawn Shapes"
Advisor: Dr. Brittany Morago Committee: Drs. Toni Pence & Russell Herman

## Research Experience

**Research Assistant**, HFSE Lab — May 2020 – Present
Advisor: Dr. Paige Rodeghero — Clemson University
Studying how communication tools prepare collegiate software engineering students for roles in industry.

**Researcher**, EdASE Coding Camp for Autism — Jan. 2021 – Present
EdASE Directors: Drs. Paige Rodeghero & Andrew Begel codeatclemson.com
Examining how computer coding camps for autism impact students' self-efficacy and communication skills.

**Research Assistant**, Visual Computing Lab — Jan. 2020 – May 2020
Advisor: Dr. Daljit Singh Dhillon — Clemson University
Developed code to model reaction-diffusion systems over arbitrary meshes.

## Teaching Experience

**Graduate Teaching Assistant** — Fall 2019, Fall 2020 – Present
School of Computing — Clemson University
**CPSC 4910/4911**: Seminar in Professional Issues II — S21, F21, S22, F22

Conducted lab lectures, provided aid, and was scrum master for 3 sections of student SE teams. (approx. 60 - 80 undergraduate students)

**CPSC 1010/1011**: Computer Science I F19, F20

Conducted lab lectures, provided aid and office hours, and graded weekly introductory programming assignments for 3 sections of students. (60 undergraduate students)

**Instructor**, EdASE Coding Camp for Autism 2021, 2022

EdASE Directors: Drs. Paige Rodeghero & Andrew Begel codeatclemson.com

Developed 2D game development course content and activities involving pixel art and videogame narratives.

Helped lead camp instruction and developed content for multiple days of camp. Liaison between parents and instructors for the 2022 camp.

**Instructor**, Engineering Expectations June 2018 – Aug. 2019

Summer & Weekend Camps University of North Carolina Wilmington

Taught children how to code in HTML/CSS, Python, Java, and Scratch in several week-long and weekend computer science camps. (20 students/camp)

## Publications

### Peer-Reviewed Conference Papers

2022

C.6 **Moster, M.**, Chandra, A., Chu, C., Liu, W., Rodeghero, P. "In the Zone: An Analysis of the Music Practices of Remote Software Developers", in Proc. of the 2022 ACM/IEEE International Symposium on Empirical Software Engineering and Measurement (ESEM '22), Helsinki, Finland, September 19-23, 2022.

C.5 **Moster, M.** "Investigating Communication Tools in SE Capstone Courses", in Proc. of the 2022 ACM Conference on International Computing Education Research V.2 (ICER '22), Lugano and Virtual Event, Switzerland, August 7–11, 2022.

C.4 **Moster, M.**, Kokinda, E., Re, M., Dominic, J., Lehmann, J., Begel, A., Rodeghero, P. "'Can You Help Me?' An Experience Report of Teamwork in a Game Coding Camp for Autistic High School Students", in Proc. of the 44th IEEE/ACM International Conference on Software Engineering - Software Engineering Education and Training Track (ICSE SEET '22), Pittsburgh, PA, USA, May 21-29, 2022.

2021 C.3 **Moster, M.**, Ford, D., Rodeghero, P. "'Is My Mic On?' Preparing SE Students for Collaborative Remote Work and Hybrid Team Communication", in Proc. of the 43rd IEEE/ACM International Conference on Software Engineering - Joint Software Engineering and Education Track (ICSE JSEET '21), Madrid, Spain, May 23-29, 2021.

C.2 Huff Jr, E. W., Boateng, K., **Moster, M.**, Rodeghero, P., Brinkley, J. "Exploring the Perspectives of Teachers of the Visually Impaired Regarding Accessible K12 Computing Education", in Proc. of the 51st Technical Symposium on Computer Science Education (SIGCSE '21), Toronto, Canada, March 13-20, 2021.

2020 C.1 Huff Jr, E. W., Boateng, K., **Moster, M.**, Rodeghero, P., Brinkley, J. "Examining the Work Experience of Programmers with Visual Impairments", in Proc. of the 36th International Conference on Software Maintenance and Evolution - New Ideas and Emerging Results Track (ICSME NIER '20), Adelaide, Australia, Sept. 27-Oct. 3, 2020.

## Workshop Papers

2022 W.1 **Moster, M.**, Begel, A., Boyer, D. M., Rodeghero, P. "A Longitudinal Study Exploring Autistic High Schoolers' Interests in CS", 4th Annual Autism at Work Research Workshop (AAWRW '22), Virtual, May 16-18, 2022.

## Professional Memberships

**Member, IEEE** 2021 – Present

**Member, Upsilon Pi Epsilon** 2018 – Present

Inducted into the UNCW chapter of Upsilon Pi Epsilon in April 2018, the international honors society for the Computing and Information disciplines.

## Honors and Awards

**Graduate Student Travel Grant** (Clemson University GSG) 2020

**Robert M. Geist III Fellowship in Computing** (Clemson University) 2019

**Dean's List** (8 semesters, UNCW) 2015 – 2019

## Service and Outreach

**President** School of Computing Graduate Student Association

Clemson University Aug. 2022 – Present

SoCGSA is a student organization that represents and holds events for computing graduate students in CS, HCC, DPA, and BDSI.

Conducted administrative duties, organization of events, and task delegation.

**Invited Panelist** New Graduate Student & Postdoc Teaching Conference

Clemson University Aug. 2022

**Student Volunteer** Carolinas Women In Computing Conference 2022

University of North Carolina Wilmington April 2022

**Hackathon Participant** CUhackit 2022

Clemson University January 29-30, 2022

**Student Volunteer** ICSE FormaliSE 2021
Madrid, Spain (Virtual) May 2021

**Program Committee Member & Website Chair** SEmotion 2021
Madrid, Spain (Virtual) May 2021
Deployed, edited, and kept website up-to-date before and during conference period.

**Pen Pal**, Letters to a Prescientist Program Aug. 2020 – Present
Corresponded through letters with an elementary school student each school year who is interested in learning more about STEM careers.
Received an **award for Exceptionally Engaging Letters** for the 2020-2021 school year.

**President**, Upsilon Pi Epsilon
University of North Carolina Wilmington Aug. 2018 – May 2019

## Skills

**Research Methods**
Survey, Survey Design, Interview, Interview Design, Qualitative Analysis, Quantitative Analysis, Grounded Theory

**Programming Languages**
Python, Java, C++, C, LaTeX, HTML/CSS

**Tools**
OpenGL, Maya, Git, GitHub, Adobe Photoshop, Adobe Illustrator, Adobe XD, MAXQDA, Azure DevOps, Qualtrics, Taguette

**Languages**
English (fluent), Spanish (limited conversant)