MAKAYLA MOSTER

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EDUCATION

Clemson University — Clemson, SC
Ph.D. Candidate in Computer Science — *Aug. 2019 – Present*
- Robert M. Geist Fellowship — 2019 – 2020

Clemson University — Clemson, SC
Graduate Certificate, Engineering and Science Education — *Jan. 2020 – Present*

Clemson University — Clemson, SC
M.S. in Computer Science — *Aug. 2019 – May 2021*

University of North Carolina Wilmington — Wilmington, NC
B.S. Honors in Computer Science — *Aug. 2015 – May 2019*
- Concentration in Digital Arts
- Magna Cum Laude — 3.886 / 4.0
- Thesis title: "Conforming Realistic, Procedural Tree Models to User-Drawn Shapes"

RESEARCH INTERESTS

- Computer Science & Software Engineering Education
- Remote/Hybrid Work & Learning
- Human-Computer Interaction
- Productivity

RESEARCH EXPERIENCE

Research Assistant — May 2020 – Present
School of Computing – Human Factors in Software Engineering Lab — *Clemson University*
- Studied how communication tools prepare collegiate software engineering students for roles in industry.
- Examined how computer coding camps for autism impact students' self-efficacy and communication skills.

Computer Game Coding Camp for Autism — Jan. 2021 – Present
Researcher — *codeatclemson.com*
- Examined how computer coding camps for autism impact students' self-efficacy and communication skills.

Research Assistant — Jan. 2020 – May 2020
School of Computing – Visual Computing Lab — *Clemson University*
- Developed code to model reaction-diffusion systems over arbitrary meshes under the guidance of Dr. Daljit Singh Dhillon.

Undergraduate Research Assistant — Aug. 2016 – Jan. 2018
Department of Computer Science — *University of North Carolina Wilmington*
- Used computer vision to a three dimensional rendering of two dimensional images with OpenCV and Python under the guidance of Dr. Brittany Morago.

TEACHING EXPERIENCE

Computer Game Coding Camp for Autism Jan. 2021 – Present
Instructor *codeatclemson.com*

- Developed 2D game development course content and activities for the 2021 camp.
- Lead camp instruction/developed content for one full day of camp.

Graduate Teaching Assistant Aug. 2019 – Dec. 2019, Aug. 2020 – Present
School of Computing *Clemson University*

- CPSC 4910/4911 [Seminar in Professional Issues II] S21, F21, S22
  - Conducted lab lectures, provided aid, and was scrum master for 3 sections of student SE teams. (approx. 60 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)

Computer Science Tutor Sept. 2018 – Dec. 2018
Department of Computer Science *University of North Carolina Wilmington*

- Tutored students in multiple computer science courses including Introduction to Programming, Discrete Mathematics, Data Structures, and Object-Oriented Programming.

Engineering Expectations Summer & Weekend Camps June 2018 – Aug. 2019
Instructor *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)

WORK EXPERIENCE

Web Development Assistant Aug. 2018 – June 2019
Division for University Advancement *University of North Carolina Wilmington*

- Aided in the maintenance and development of web pages and emails using HTML, CSS, and JavaScript.

PUBLICATIONS

2022

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

- **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.
- 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

- 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.

AWARDS, FELLOWSHIPS, AND HONORS

School of Computing Graduate Student Association Aug. 2022 - Present
President *Clemson University*

- President of SoC GSA, a student organization that represents and holds events for computing graduate students.

Graduate Student Travel Grant 2020
Recipient *Clemson University*

Robert M. Geist III Fellowship in Computing Aug. 2019 – May 2020
Recipient *Clemson University*

Upsilon Pi Epsilon Apr. 2018 - Present
UNCW Chapter President *2018 - 2019*

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

Dean's List Aug. 2015 – May 2019
8 semesters *University of North Carolina Wilmington*

REVIEWING EXPERIENCE

Computer-Supported Cooperative Work 2022
Reviewer *CSCW 2022*

Int'l Workshop on Emotion Awareness in Software Engineering 2021
Reviewer *SEmotion 2021*

ACM Joint ESEC and Symposium on the FSE 2021
Subreviewer *ESEC/FSE 2021*

CONFERENCES ATTENDED

2022

- Conference on International Computing Education Research (ICER), Lugano, Switzerland [Virtual]

- International Conference on Software Engineering (ICSE), Pittsburgh, PA, USA [Virtual]
- Carolinas Women in Computing (CWIC), UNCW, Wilmington, NC, USA [Student Volunteer]

2021

- Special Interest Group Computer Science Education (SIGCSE) Technical Symposium [Virtual]
- International Conference on Software Engineering (ICSE), Spain [Student Volunteer, Virtual]
- Microsoft Research Summit (MSR Summit) [Virtual]

2020

- International Conference on Software Engineering (ICSE), South Korea [Virtual]
- International Conference on Software Maintenance and Evolution (ICSME), Australia [Virtual]

EXTRACURRICULARS AND SERVICE

New Graduate Student & Postdoc Teaching Conference Panelist August 2022
Invited Panelist *Clemson University*

CWIC 2022 Student Volunteer April 2022
CWIC 2022 – 3D Modeling Workshop *UNCW, Wilmington, NC, USA*

CUhackit (Hackathon) January 29-30, 2022
Hacker on team Fractals.tech *CUhackit at Clemson University*

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

SEMotion 2021 Program Committee Dec. 2020 – May 2021
PC Member *ICSE 2021 Workshop website*

SEMotion 2021 Chair Dec. 2020 – May 2021
Website Chair *ICSE 2021 Workshop website*

- Deployed, edited, and kept website up-to-date before and during conference period.

Letters to a Pre-Scientist Program Aug. 2020 – Present
Pen Pal *www.prescientist.org*

- Corresponded through letters with an elementary school student each school year who is interested in learning more about STEM.
- Received an **award for Exceptionally Engaging Letters** for the 2020-2021 school year.

SKILLS

Research Methods: Survey & Design, 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)