Makayla Moster, Ph.D.

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Incoming Assistant Professor
Department of Computer Science
University of North Carolina Wilmington

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Education

Ph.D. in Computer Science — May 2025
Clemson University — Clemson, SC
Dissertation: "Learning Through Online Participation: From Breakout Rooms to Discord"

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

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

B.S. Honors in Computer Science, Digital Arts concentration — May 2019
University of North Carolina Wilmington — Wilmington, NC
Magna Cum Laude — GPA: 3.886
Thesis: "Conforming Realistic, Procedural Tree Models to User-Drawn Shapes"

Publications

[†] paper presented [‡] poster presented [*] co-first authorship

Journal Articles

2023

J.1[†] [*]**Moster, M.**, [*]Kokinda, E., Rodeghero, P., McNeese, N. "Both Sides of the Story: Changing the "Pre-existing Culture of Dread" Surrounding Student Teamwork in Breakout Rooms", in Proc. of the ACM on Human Computer Interaction, 7, CSCW1, Article 30 (April 2023), 33 pages.

Peer-Reviewed Conference Papers

2024

C.10 Kokinda, E., **Moster, M.**, Rodeghero, P., Boyer, D. M. "Informal Learning Opportunities - Neurodiversity, Self-Efficacy, and Motivation for Programming Interest", presented at the 16th International Conference on Computer Supported Education (CSEDU '24), Angers, France, May 2-4, 2024.

C.9[‡] **Moster, M.**, Boyer, D. M., Rodeghero, P. "WIP: Exploring how an Unofficial Discord Server Supports Undergraduate Learning in Computer Science", presented at 2024 ASEE Annual Conference & Exposition, Portland, Oregon, USA, June 23-26, 2024.

C.8†   Kokinda, E., **Moster, M.**, Rodeghero, P., Boyer, D. M. "Compiling Resilience: A Study on First-Generation Women Pursuing Computing Degrees", presented at 2024 ASEE Annual Conference & Exposition, Portland, Oregon, USA, June 23-26, 2024.

C.7†   **Moster, M.**, Kokinda, E., Boyer, D. M., Rodeghero, P. "Experiences with Summer Camp Communication via Discord", in Proc. of the 46th IEEE/ACM International Conference on Software Engineering - Sofware Engineering Education and Training Track (ICSE SEET '24), Lisbon, Portugal, April 14-20, 2024.

2023   C.6   Kokinda, E., **Moster, M.**, Dominic, J., Rodeghero, P. "Under the Bridge: Trolling and the Challenges of Recruiting Software Developers for Empirical Research Studies", in Proc. of the 45th IEEE/ACM International Conference on Software Engineering - New Ideas and Emerging Results Track (ICSE NIER '23), Melbourne, Australia, May 17-19, 2023.

2022   C.5   **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.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.

Symposia and Workshop Papers

2022

SW.2‡   **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.

SW.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.

Teaching Experience

Adjunct Faculty   January 2025 – May 2025

Department of Computer Science   University of North Carolina Wilmington

CIT 425: Human-Computer Interfaces   2025
    Spring 2025: 9 undergraduate students (1 section)

Graduate Teaching Assistant   August 2019 – May 2025

School of Computing   Clemson University

CPSC 8740: AI-Receptive Software Development   2024 – 2025
    Spring 2024: Aided in course development

    Fall 2024: 116 graduate students (3 sections + 1 Coursera section)

    Spring 2025: 46 graduate students (1 Coursera section)

CPSC 9500: Graduate Seminar   2023
Hosted by SoCGSA during my time as president.
    Spring 2023: 6 graduate students

CPSC 4910/4911: Senior Computing Practicum   2021 – 2023
    Spring 2021: 87 undergraduate students (4 sections)
    Fall 2021: 60 undergraduate students (3 sections)
    Spring 2022: 72 undergraduate students (3 sections)
    Fall 2022 [Lead GTA]: 77 undergraduate students (3 sections)
    Spring 2023 [Lead GTA]: 94 undergraduate students (6 sections)

CPSC 1010/1011: Computer Science I   2019, 2020
    Fall 2019: 65 undergraduate students (3 sections)
    Fall 2020: 55 undergraduate students (3 sections)

Instructor, EdASE Coding Camp for Autism   2021 – 2024

Summer Camp   Clemson University

Developed course content surrounding 2D game design using Godot Engine (2021, 2022) and Scratch (2023, 2024).

Created instructional videos for campers and led camp instruction online.

Liaison between parents and instructors for the 2022 camp.
    Summer 2021: 14 campers

Summer 2022: 15 campers
Summer 2023: 20 campers
Summer 2024: 20 campers

Instructor, Engineering Expectations　　　　June 2018 – August 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.
　　approx. 20 campers/camp

Honors and Awards	**Exceptionally Engaging Letters award** (Letters for a Prescientist)	2021
	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

Professional Memberships	**ACM**	2023 – Present
	IEEE	2021 – Present
	Upsilon Pi Epsilon	2018 – Present

Reviewing Experience	**ASEE Annual Conference**	2024, 2025
	ACM CSCW	2022
	IEEE/ACM ICSE SEmotion	2021
	ACM FSE	2021

Service and Outreach

Invited Panelist　An Inside Look at Clemson's MSCS Enrollment & Courses
Clemson University　　　　　　　　　　September & October 2024

Invited Panelist　　　　　　Deep Dive into Clemson's MSCS Program
Clemson University　　　　　　　　　　　　　June & July 2024

Session Moderator　　　　ASEE Annual Conference & Exposition 2024
Portland, Oregon　　　　　　　　　　　　　　　　June 2024

Judge　　　　Clemson Tigertown Throwdown Robotics Competition
Clemson University　　　　　　　　　　　　February 4, 2023

President　　　　School of Computing Graduate Student Association
Clemson University　　　　　　　　　　August 2022 – May 2024
SoCGSA is a student organization that represents and holds events for Clemson's School of Computing graduate students in Computer Science, Human-Centered Computing, Digital Production Arts, and Biomedical Data Science & Informatics graduate programs.
Conducted administrative duties, organization of events, and task delegation.

Invited Panelist   New Graduate Student & Postdoc Teaching Conference
Clemson University   August 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   FormaliSE at ICSE 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   August 2020 – May 2023
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.

Skills

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

Programming Languages
Python, C++, C, LaTeX, HTML/CSS, Gatsby, Tailwind CSS, Scratch, Godot Engine

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