Makayla Moster

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LinkedIn: //mmoster **ORCiD**: Makayla Moster **Google Scholar**: Makayla Moster

Research Interests

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

Education

Clemson University Clemson, SC
Ph.D. Candidate in Computer Science August 2019 – Present
Advisor: 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: Brittany Morago Committee: Toni Pence and Russell Herman

Research Experience

Research Assistant, HFSE Lab May 2020 – Present
Advisor: Paige Rodeghero Clemson University
Studying how communication tools prepare collegiate software engineering students for roles in industry.
Examining how computer coding camps for autism impact students' self-efficacy and communication skills.

Researcher, EdASE Coding Camp for Autism Jan. 2021 – Present
EdASE Directors: Paige Rodeghero and 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: Daljit Singh Dhillon Clemson University
Developed code to model reaction-diffusion systems over arbitrary meshes.

Teaching Experience

Instructor, EdASE Coding Camp for Autism 2021, 2022
Developed 2D game development course content and activities.

Lead camp instruction and developed content for multiple days of camp.

Graduate Teaching Assistant Fall 2019, Fall 2020 – Present
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, Summer & Weekend Camps June 2018 – Aug. 2019
Engineering Expectations 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

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.

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.

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.

Workshop Papers

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.

Professional Memberships

Member, IEEE 2021 – Present

Member, Upsilon Pi Epsilon 2018 – Present

Inducted into the UNCW chapter of Upsilon Pi Epsilon, 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

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

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 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 & 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)