

MAKAYLA MOSTER

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EDUCATION

Clemson University

Ph.D. Candidate in Computer Science

- Robert M. Geist Fellowship
- Teaching Certificate in Engineering & Science Education

Clemson, SC

Aug. 2019 – Present

2019 – 2020

Jan. 2020 – Present

Clemson University

M.S. in Computer Science

Clemson, SC

Aug. 2019 – May 2021

University of North Carolina Wilmington

B.S. Honors in Computer Science

- Concentration in Digital Arts
- Magna Cum Laude
- Thesis title: “Conforming Realistic, Procedural Tree Models to User-Drawn Shapes”

Wilmington, NC

Aug. 2015 – May 2019

3.886 / 4.0

RESEARCH INTERESTS

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

RESEARCH EXPERIENCE

Research Assistant

School of Computing – Human Factors in Software Engineering Lab

- 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.

May 2020 – Present

Clemson University

Computer Game Coding Camp for Autism

Researcher

- Examined how computer coding camps for autism impact students’ self-efficacy and communication skills.

Jan. 2021 – Present

codeatclemson.com

Research Assistant

School of Computing – Visual Computing Lab

- Developed code to model reaction-diffusion systems over arbitrary meshes under the guidance of Dr. Daljit Singh Dhillon.

Jan. 2020 – May 2020

Clemson University

Undergraduate Research Assistant

Department of Computer Science

- Used computer vision to a three dimensional rendering of two dimensional images with OpenCV and Python under the guidance of Dr. Brittany Morago.

Aug. 2016 – Jan. 2018

University of North Carolina Wilmington

TEACHING EXPERIENCE

Computer Game Coding Camp for Autism

Jan. 2021 – Present

Instructor

codeatclermson.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.**, 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”, to appear 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.

In Preparation

- **Moster, M.**, Kokinda, E., Rodeghero, P., McNeese, N., “Comparing Student & Instructor Challenges within Online Learning in Secondary Education”
- **Moster, M.**, Ford, D., Rodeghero, P., “Student Remote Communication & Collaboration during Remote Software Development Projects”
- **Moster, M.**, Chandra, A., Chu, C., Liu, W., Rodeghero, P., “Analyzing Remote Software Developers’ Productivity & Music-Listening Habits”

AWARDS, FELLOWSHIPS, AND HONORS

Graduate Student Travel Grant

Recipient

2020

Clemson University

Robert M. Geist III Fellowship in Computing

Recipient

Aug. 2019 – May 2020

Clemson University

Upsilon Pi Epsilon

UNCW Chapter President

Apr. 2018 - Present

2018 - 2019

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

Dean’s List

8 semesters

Aug. 2015 – May 2019

University of North Carolina Wilmington

REVIEWING EXPERIENCE

Computer-Supported Cooperative Work

Reviewer

2022

CSCW 2022

Int’l Workshop on Emotion Awareness in Software Engineering

Reviewer

2021

SEmotion 2021

ACM Joint ESEC and Symposium on the FSE

Subreviewer

2021

ESEC/FSE 2021

CONFERENCES ATTENDED

2022

- International Conference on Software Engineering (ICSE), Pittsburgh, PA, USA
- 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

CWIC 2022 Student Volunteer

CWIC 2022 – 3D Modeling Workshop

April 2022

UNCW, Wilmington, NC, USA

CUhackit (Hackathon)

Hacker on team Fractals.tech

January 29-30, 2022

CUhackit at Clemson University

ICSE 2021 Student Volunteer

SV for FormaliSE 2021

May 2021

Madrid, Spain (Virtual)

SEMotion 2021 Program Committee

PC Member

Dec. 2020 – May 2021

ICSE 2021 Workshop website

SEMotion 2021 Chair

Website Chair

Dec. 2020 – May 2021

ICSE 2021 Workshop website

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

Letters to a Pre-Scientist Program

Pen Pal

Aug. 2020 – Present

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)