SOFIA MEYERS

(309)-509-1013 | sofiaem2@illinois.edu | Woodhull, IL | https://sofiaem2.github.io

Education

University of Illinois at Urbana-Champaign	Expected, May 2027
Doctor of Philosophy in Computer Science	GPA: 3.72
University of Illinois at Urbana-Champaign	May 2024
Master of Computer Science	GPA: 3.72
Knox College	April 2017
Bachelor of Arts in Computer Science	GPA: 3.13
Minor in French	

Technical Skills

Research Skills: Qualitative (Eye-Tracking, Transcripts, code), Quantitative (grade distributions)

Data Analysis: Qualitative (Inductive/Deductive coding, Thematic analysis), Quantitative (ANOVA, T-test, Correlation, Ordinary Least Square Regression (OLS))

Applications/Languages: R, Python, Java, Excel, SPSS, R Studio

Research Experience

Graduate Research Assistant (STEM-C Project)   December 2022 - Present
Educational Psychology, University of Illinois at Urbana-Champaign,   Advisor: Chad Lane
- Edited Interview Protocol for two camps to add data science concepts questions
- Trained another research team member on qualitative analysis (bullet 3)
- Analyzed responses with Inductive and Deductive coding followed by Thematic Analysis
- Directed and authored ICER'24 conference publication on qualitative analysis(bullet 2)
- Conducted exploratory qualitative analysis on code written by participants for one camp
- Performed descriptive quantitative analysis on code written by participants for one camp
- Recommended improvements for instructional slides used in two camps

Graduate Research Assistant   June 2018 -August 2019
Computer Science Department, University of Illinois,   Advisor: Geoffrey Herman
- Led Eye-Tracking Research Project
- Tested. calibrated and repaired Eye-tracking equipment for the study
- Upgraded and standardized materials and procedures for the study
- Performed a pilot study and improved procedures based on the results of a pilot study
- Received training to conduct studies with participants from another graduate assistant
- Coached other research team members for the data collection stage
- Managed research team: organized weekly meetings and resolved conflicts
- Completed data collection with other research group members
- Completed data analysis for part of the data with another research group member
- Authored paper on quantitative analysis for Eye-Tracking data (see publication 3)
- Directed and authored ICER'24 conference publication on qualitative analysis
- Currently working on improving the research paper for publication

Undergraduate Research Assistant   June 2015 - August 2015 & January 2015 - Mach 2015
Computer Science Department, Knox College   Advisor: David Bunde
- Created a new global link arrangement called Nautilus for Dragonfly network topology

- Accelerated the speed of a supercomputer with Nautilus topology (bullet 1)
- Collaboratively designed routing and job allocation algorithms based on research papers
- Pair Programmed existing routing and job allocation algorithms for Dragonfly topology
- Performed and analyzed bisection bandwidth tests for Dragonfly topology
- Trained new team members to run bisection bandwidth tests and other research activities
- Authored two papers on this research project (see publications 1 & 2)

Teaching Experience

Teaching Assistant (Introduction to Educational Psychology)   Jan 2024 – May 2024
Educational Psychology Department, University of Illinois at Urbana-Champaign
- Led two discussion sections weekly for 60 students in total
- Tailored and created teaching materials for online teaching based on existing materials
- Answered student's questions on course content through emails and Canvas
- Evaluated students' work for my sections
- Suggested course improvements during staff meetings
- Informed students about course content through Canvas announcements

Teaching Assistant (Intro Programming for Scientists and Engineers)   Aug 2021-Aug 2022
Computer Science Department, University of Illinois at Urbana-Champaign
- Led two lab sections with the help of two Course Assistants weekly for 50 students
- Conducted office hours weekly and aided students with course material
- Answered questions on CampusWire one day per week
- Evaluated student projects for my two lab sections
- Programmed back-end of PrairieLearn for implementation of some lab activities
- Suggested course improvements
- Evaluated student's work for my sections

Teaching Assistant (Introduction to Computing: Non-Tech)   August 2019-December 2020
Computer Science Department, University of Illinois at Urbana-Champaign
- Led two lab sections with the help of a Course Assistant (CA) weekly for 60 students
- Aided students with course content through office hours and assistance during lab periods
- Answered questions on Piazza one day per week
- Developed two of the labs that matched course content with feedback from course staff
- Proctored proficiency exams on a need basis
- Monitored lectures when asked by an Instructor
- Recommended improvements on labs developed by other course staff
- Suggested course improvements on weekly course staff meetings

Teaching Assistant (Virtual Reality)   August 2018 to December 2018
Computer Science Department, University of Illinois at Urbana-Champaign
- Evaluated homework assignments and final projects
- Mentored a half-semester-wide project for two teams via weekly meetings
- Assisted students with course content on a need basis

Teaching Assistant (Introduction to Computer Science)   September 2016 to November 2016
Computer Science Department, Knox College
- Evaluated homework assignments

- Conducted private tutoring sessions when requested by students
- Provided exam review sessions
- Aided students with the course content during lab periods

Teaching Assistant (Program design and methodology)   March 2016 - June 2016
Computer Science Department, Knox College
- Evaluated homework assignments
- Conducted private tutoring sessions when requested by students
- Assisted students during lab periods

Teaching Assistant (Introduction to Computer Science)   January 2016 - March 2016
Computer Science Department, Knox College
- Evaluated homework assignments
- Conducted private tutoring sessions when requested by students
- Provided exam review sessions
- Assisted students during lab periods

Publications

Conference Publications

1. Hastings, E., Rincon-Cruz, D., Spehlmann, M., Meyers, S., Xu, A., Bunde, D. P., & Leung, V. J. (2015, September). Comparing global link arrangements for Dragonfly networks. In *Cluster Computing (CLUSTER), 2015 IEEE International Conference on* (pp. 361-370). IEEE.
2. Belka, M., Doubet, M., Meyers, S., Momoh, R., Rincon-Cruz, D., & Bunde, D. P. (2017 February). New Link Arrangements for Dragonfly Networks. In *High-Performance Interconnection Networks in the Exascale and Big-Data Era (HiPINEB), 2017 3rd IEEE International Workshop on* (pp. 17-24). IEEE.
3. Herman, G. L., Meyers, S., & Deshaies, S. E. (2021, July). A Comparison of Novice Coders' Approaches to Reading Code: An Eye-tracking Study. In *2021 ASEE Virtual Annual Conference Content Access*.

Conference Presentations

1. Conference Workshop Oral Presentation
   Geoffrey Herman, Sofia Meyers(Presenter), Sushimita Azad, Aabhas Chauhan, Danielle Plecki (2019, August) "A behind the scenes look at how novices read code" Prsented at ICER Work In Progress Workshop (WIPW) on August 11, 2019, Ontario, Canada
2. Conference Poster Presentation
   Sofia Meyers(Presenter), Deyu Han (Presenter), Michael Anderson,Rosemary Momoh, Hai Lee, Logan Ayers, Marc Spehlmann, Prof.David Bunde (2015, November) "Task Mapping for Emerging Network Topologies". Presented at 2015 Undergraduate Research Symposium in the Physical Sciences, Math, and Computer Science on November 14, 2015, Chicago, IL

Honors and Awards

Andrew & Shana Laursen Fellowship
University of Illinois at Urbana-Champaign   2020-2021
Duain A. and Helen F. Johnson Scholarship
Community Foundation of Tampa Bay   2013

References

1. **H Chad Lane,** Associate Department Chair & Associate Professor,
   Educational Psychology, University of Illinois at Urbana-Champaign
   hclane@illinois.edu
   Relationship: Ph.D advisor and STEM-C project supervisor
2. **Jeff Ginger**, Adjunct Lecturer
   Library and Information Science, University of Illinois at Urbana-Champaign
   ginger@illinois.edu
   Relationship: STEM-C project supervisor
3. **Jessica Gladstone**, Assistant Professor,
   Educational Psychology, University of Illinois at Urbana-Champaign
   jglads2@illinois.edu
   Relationship: Instructor for EPSY 201 course in which I was a teaching assistant.
4. **David P. Bunde**, William & Marilyn Ingersoll Chair
   Computer Science, Knox College
   dbunde@knox.edu
   Relationship: Undergraduate advisor and Dragonfly topology research project supervisor
5. **Emily Hastings**, Assistant Professor
   Computer Science, University of Wisconsin Eau Claire
   hastinem@uwec.edu
   Relationship: class project collaborator, Dragonfly topology research project collaborator