Julie M. Smith

601 Canyon Trail Court, Round Rock, Texas, 78664 512.966.6199

juliemariecsmith.github.io juliesmith3@my.unt.edu

Research Interests

computer science education, multimedia, curriculum design, learning sciences, equity, learning analytics

Education

DOCTORATE IN PHILOSOPHY | EXPECTED MAY 2023 | UNIVERSITY OF NORTH TEXAS

- Learning Technologies, with a focus on computer science education; GPA: 4.0

BACHELOR OF APPLIED SCIENCE | EXPECTED MAY 2022 | AUSTIN COMMUNITY COLLEGE

- Software Development; GPA: 3.9

MASTER OF EDUCATION | MAY 2019 | TEXAS A & M UNIVERSITY

- Curriculum and Instruction, with a focus on educational technology; GPA: 4.0

MASTER OF ARTS | MAY 1996 | GRADUATE THEOLOGICAL UNION

- Biblical Studies, with a focus on feminist interpretation; GPA: 3.9

BACHELOR OF ARTS | DECEMBER 1994 | THE UNIVERSITY OF TEXAS AT AUSTIN

- English major, Education minor; GPA: 3.9

TEACHING CERTIFICATIONS

- Texas, Computer Science
- Texas, Secondary English

Experience

- **Cultural Competence in Computing** is a professional development fellowship program of the Identity in Computing Lab at Duke University. As a fellow in this program, I engage with a substantial reading list, attend professional development, and create an equity-related deliverable. *2021 to present.*
- **MIT Teaching Systems Lab** focuses on preparing teachers, including via PACE-HS, an NSF-funded project focused on improving equitable computer science education by partnering with school districts. My work as a research assistant on this project includes designing workshop materials, conducting research, adapting training materials, coordinating logistics, analyzing research findings, and writing for publication. *2021 to present.*
- **CSEdGrad** is an NSF-funded project exploring pathways for graduate students in computer science education. After interviewing leaders in the field, I developed and managed community activities

including study groups, a podcast, and a conference. I also conducted and published research related to the outcomes of these events. *2020 to 2021.*

- **Hindsight 2020** is an NSF-funded project analyzing the experience of providers of computer science professional development who had to quickly pivot to remote instruction during the pandemic. I collaborated with the research team in developing the survey, managing participants, analyzing the outcome data, and writing reports. *2020 to 2021.*
- **University of North Texas**: As a teaching assistant, I created rubrics and learning materials, graded student work, and supported students, including in doctoral-level courses. *2019 to present.*
- **eDynamic Learning** provides online electives. I created instructional content, labs, activities, and assessments for courses including Middle School Coding, High School Coding, Principles of Information Technology, Outlook, Digital Media Fundamentals I and II, Web Development I and II, Access, and Programming I and II. *2018 to present.*

Service

- Member of the steering committee for the 2022 Consortium for Computing Sciences in Colleges South Central Region
- Reviewer for the 2021 and 2022 SIGCSE conferences
- Reviewer for the 2021 and 2022 RESPECT conferences
- Reviewer for the 2020 ACM/CSTA Cutler-Bell Prize in High School Computing
- Volunteer teacher (web development) for Country Girls Code (2020)
- Reviewer for the 2020 ITiCSE conference

Awards

- SIGCSE New and Aspiring Educators Travel Grant, 2022
- E. Bruce Street Scholarship, 2021
- Federation Research Symposium, First Place Poster Award, 2021
- Toulouse Graduate School Tuition Award, Summer 2021
- SIGCSE Travel Grant, 2020 (canceled for COVID)
- Toulouse Graduate School Tuition Award, Summer 2020
- Best Paper Award, PPTELL 2020 for "Is Computational Thinking Critical Thinking?"
- 2020 Student Research Award for "What Researchers of Learning Technologies Should Know about Algorithmic Bias" at the Annual UNT Learning Technologies Distributed Meeting
- Lead Developer Austin Scholar, 2019

Publications

McGill, M. M., Zarch, R., Sexton, S., **Smith, J. M.**, Ong, C., Rasberry, M., & Hollis, S. (2021). Evaluating Computer Science Professional Development for Teachers in the United States. In *21st Koli Calling International Conference on Computing Education Research* (pp. 1-9).

Smith, J. M. (2021). Algorithms and Bias. In *Encyclopedia of Organizational Knowledge, Administration, and Technology* (pp. 918-932). IGI Global.

Smith, J. M. (2021). The Gender Data Gap in Computing Education Research. In T. Bastiaens (Ed.), *Proceedings of EdMedia + Innovate Learning* (pp. 232-237). United States: Association for the Advancement of Computing in Education (AACE).

Smith, J. M. (2021). Is Computational Thinking Critical Thinking?. In *Expanding Global Horizons Through Technology Enhanced Language Learning* (pp. 191-201). Springer, Singapore.

Smith, J. M. (2021). Worked Examples: An Overview. In T. Bastiaens (Ed.), *Proceedings of EdMedia + Innovate Learning* (pp. 128-134). United States: Association for the Advancement of Computing in Education (AACE).

Smith, J. M. (2020). Does the Status of Women Predict the Gender Ratio of Computer Science Students?. *Journal of Computers in Mathematics and Science Teaching*, *39*(3), 269-278.

Smith, J. M. (2020, June). Teaching Web Development: A Literature Review. In *EdMedia+ Innovate Learning* (pp. 310-314). Association for the Advancement of Computing in Education (AACE).

Smith, J. M. (2019). Parsons Problems: A Literature Review, *ICERI2019 Proceedings*, pp. 7773-7778.

Smith, J. M. (2019). Computational Thinking without Algorithmic Bias, *ICERI2019 Proceedings*, pp. 7577-7581.

Presentations

Smith, J. M. (2022). Constructivism in Computer Science Education. In *Proceedings of the 53rd ACM Technical Symposium on Computer Science Education V. 2* (SIGCSE 2022). Association for Computing Machinery, New York, NY, USA, 1171.

Smith, J. M. (2021). Beyond the Gender Binary in Computing Education Research. In *Proceedings of the 17th ACM Conference on International Computing Education Research* (pp. 444-445).

Smith, J. M., & Peterfreund, A. (2021). “Getting Better at Getting Better”: A Connectivist Approach to Building a Community of CSEd Graduate Students. In *2021 Conference on Research in Equitable and Sustained Participation in Engineering, Computing, and Technology (RESPECT)* (pp. 1-2). IEEE.

Smith, J.M. (2021). Experiences and Perceptions of CS Graduate Students. Presented at the Consortium for Computing Sciences in Colleges: South Central Region.

Smith, J.M. (2021). "Computer Science Was Still in Diapers": The Experiences of Female Computer Science Pioneers. Presented at the Federated Research Symposium.

Peterfreund, A., Esaison, J., **Smith, J. M.**, & Johnston, B. (2021). Computer Science Education Graduate Students: Defining a ommunity and its neNeds. In *Proceedings of the 52nd ACM Technical Symposium on Computer Science Education* (pp. 1337-1337).

Smith, J. M. (2020). Presenting Basic CS Concepts: A Content Analysis of AP CSA Textbooks. In *Koli Calling'20: Proceedings of the 20th Koli Calling International Conference on Computing Education Research* (pp. 1-2).

Smith, J. M. (2020). What Researchers of Learning Technologies Should Know about Algorithmic Bias. Presented at the UNT Learning Technologies Distributed Meeting

Smith, J. M. (2020). Learn Regex: A Novel Tool for Learning Regular Expressions. In *Proceedings of the 21st Annual Conference on Information Technology Education* (pp. 293-293).

Smith, J. M. (2020). The Data Gap: A Potential Barrier to Gender Equity in Computer Science Education. In *Proceedings of the 51st ACM Technical Symposium on Computer Science Education* (pp. 1426-1426).