Julie M. Smith

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# Objective

### To apply my expertise in curriculum development, quantitative research, and computer science in order to improve computer science education, particularly for underrepresented students.

# Summary of Qualifications

# academic background in curriculum and instruction

# computer science background (including Python, Java, C++, HTML/CSS/JS, SQL, and Racket)

# academic background in quantitative research (including SPSS, R, and SQL)

# deep knowledge of and commitment to diversity, equity, inclusion, and justice

# Education

## DOCTORATE IN PHILOSOPHY | ANTICIPATED 2023 | University of North texas

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

## Bachelor of applied Science | anticipated 2022 | Austin Community College

* Software Development major; GPA: 4.0

## master of education | spring 2019 | Texas A & M university

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

## ADDITIONAL COURSEWORK | 2019

* Duke University via Coursera, Programming Foundations with JavaScript, HTML and CSS
* Google via Coursera, Google IT Support Professional Certificate

## BACHELOR OF ARTS | FALL 1994 | THE UNIVERSITY OF TEXAS AT AUSTIN

* English major, Education minor; GPA: 3.9

## teaching certificationS

* Texas, Secondary English
* Texas, Computer Science

# Experience

* **CSEdGrad** is an NSF-funded project exploring pathways for graduate students in computer science. 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 present.*
* **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 present.*
* **eDynamic Learning:** 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.*
* **University of North Texas**: As a teaching assistant, I created rubrics and learning materials, graded student work, and supported students, including in PhD-level courses. *2019 to present.*

## service

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

## AWARDS

* Lead Developer Austin Scholar, 2019
* 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
* E. Bruce Street Scholarship, 2021
* Federation Research Symposium, First Place Poster Award, 2021
* Toulouse Graduate School Tuition Award, Summer 2021

# Publications

* **ENCYCLOPEDIA OF ORGANIZATIONAL KNOWLEDGE, ADMINISTRATION, AND TECHNOLOGY**

Algorithms and Bias

**SMITH, J. 2021**

* **EXPANDING GLOBAL HORIZONS THROUGH TECHNOLOGY ENHANCED LANGUAGE LEARNING**

Is computational thinking critical thinking?

**SMITH, J. 2021**

* **JOURNAL OF COMPUTERS IN MATHEMATICS AND SCIENCE TEACHING**

[Does the status of women predict the gender ratio of computer science students?](https://www.learntechlib.org/p/217495/)

**SMITH, J. 2020**

* **EDMEDIA + INNOVATE LEARNING PROCEEDINGS**

[Teaching web development: A literature review](https://www.learntechlib.org/p/217316/)

**SMITH, J. 2020**

* **INTERNATIONAL CONFERENCE OF EDUCATION, RESEARCH AND INNOVATION PROCEEDINGS**

[Parsons problems: A literature review](https://library.iated.org/view/SMITH2019PAR)

**SMITH, J. 2019**

* **INTERNATIONAL CONFERENCE OF EDUCATION, RESEARCH AND INNOVATION PROCEEDINGS**

[Computational thinking without algorithmic bias](https://library.iated.org/view/SMITH2019COM)

**SMITH, J. 2019**

# Presentations

* RESEARCH ON EQUITY AND SUSTAINED PARTICIPATION IN ENGINEERING, COMPUTING, AND TECHNOLOGY

"Getting Better at Getting Better": A Connectivist Approach to Building a Community of CSEd Graduate Students

SMITH, J. AND PETERFREUND, A. 2021

* CONSORTIUM FOR COMPUTING SCIENCES IN COLLEGES: SOUTH CENTRAL REGION

Experiences and Perceptions of CS Graduate Students

SMITH, J. 2021

* FEDERATED RESEARCH SYMPOSIUM

"Computer Science Was Still in Diapers": The Experiences of Female Computer Science Pioneers

SMITH, J. 2021

* ACM TECHNICAL SYMPOSIUM ON COMPUTER SCIENCE EDUCATION

Computer Science Education Graduate Students: Defining a Community and Its Needs

PETERFREUND, A., ESAISON, J., SMITH, J., AND JOHNSTON, B. 2021

* PAN-PACIFIC TECHNOLOGY ENHANCE LANGUAGE LEARNING AND CRITICAL THINKING

Is Computational Thinking Critical Thinking?

SMITH, J. 2020

* KOLI CALLING INTERNATIONAL CONFERENCE ON COMPUTING EDUCATION RESEARCH

Presenting Basic CS Concepts: A Content Analysis of AP CSA Textbooks

SMITH, J. 2020

* UNT LEARNING TECHNOLOGIES DISTRIBUTED MEETING

What Researchers of Learning Technologies Should Know about Algorithmic Bias

SMITH, J. 2020

* ACM SIG CONFERENCE ON INFORMATION TECHNOLOGY EDUCATION

Learn Regex: A Novel Tool for Learning Regular Expressions

SMITH, J. 2020

* ACM TECHNICAL SYMPOSIUM ON COMPUTER SCIENCE EDUCATION

The Data Gap: A Potential Barrier to Gender Equity in Computer Science Education

SMITH, J. 2020