

AADARSH PADIYATH

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Last Updated: March 2025

RESEARCH INTERESTS

Human-Computer Interaction, Computing Education, Computing Culture, Broadening Participation in Computing, Computing Ethics, Critical Computing, Critical Consciousness in Computing, Computing Curricula, Online Textbooks

EDUCATION

University of Michigan, Ann Arbor

Ph.D. Candidate in Information

August 2021 - June 2026

Advisors: Barbara Ericson and Mark Guzdial

Georgia Institute of Technology

M.S. in Computer Science

August 2019 - August 2021

Advisors: Brian Magerko and Thad Starner

Georgia Institute of Technology

B.S. in Computer Science

August 2016 - August 2019

INDUSTRY AND PROFESSIONAL EXPERIENCE

Amazon - *Amazon Robotics* - Software Development Intern

June 2020 - August 2020

Amazon - *Goodreads.com* - Software Development Intern

June 2019 - August 2019

Amazon - *Amazon Web Services* - Software Development Intern

June 2018 - August 2018

AWARDS AND HONORS

University of Michigan Center for Ethics, Society, and Computing Graduate Researcher Fellow

August 2021 - Present

STEM Diversity Graduate Fellowship with National Institute of Standards and Technology (NIST)

June 2021 - May 2024

RESEARCH

GRANTS

External

ACM Special Interest Group in Computer Science Education (SIGCSE) Special Projects Grant

\$5000

Development and Validation of the Critical Consciousness in Computing Scale.

January 2024

Internal

University of Michigan Rackham Graduate School

\$1500

Development of the Critical Consciousness in Computing Scale.

November 2023

University of Michigan Undergraduate Research Opportunity Program

\$1000

Examining Tensions in Large Language Model Use in Undergraduate Programming Classrooms.

October 2023

Center for Ethics, Society, and Computing

\$500

The Journal of Irresponsible Computing (JIrC).

September 2022

PEER-REVIEWED PUBLICATIONS

Journal Articles

J.1 - **Aadarsh Padiyath**. 2024. *A Realist Review of Undergraduate Student Attitudes towards Ethical Interventions in Technical Computing Courses*. ACM Transactions on Computing Education (TOCE).

Conference Papers (Conferences are top-tier publication venues for computing. +Mentored student. *Equal contribution.)

C.8 - **Aadarsh Padiyath**, Mark Guzdial, and Barbara Ericson. 2025. *Development of the Critical Reflection and Agency in Computing Index*. 2025 ACM Conference on Human Factors in Computing Systems (CHI 2025). [**Honorable Mention - Top 5% Paper, 25.1% Acceptance Rate**]

C.7 - Barbara Ericson, Xingjian Gu, Zihan Wu, Shefali Patel, **Aadarsh Padiyath**. 2025. *Can a Free Tool in an Ebook Platform, Searchable Question Bank, and Summer Workshop Help Instructors Adopt Peer Instruction?*. 2025 ACM Technical Symposium on Computer Science Education (SIGCSE TS 2025).

C.6 - Amy Pang+, **Aadarsh Padiyath**, Diego Viramontes Vargas+, and Barbara Ericson. 2024. *Examining the Relationship between Socioeconomic Status and Beliefs about Large Language Models in an Undergraduate Programming Course*. 2024 ACM SIGCSE Virtual Conference (SIGCSE Virtual 2024).

C.5 - **Aadarsh Padiyath**, Xinying Hou, Amy Pang+, Diego Viramontes Vargas+, Xingjian Gu, Tamara Nelson-Fromm, Zihan Wu, Mark Guzdial, and Barbara Ericson. 2024. *Insights from Social Shaping Theory: The Appropriation of Large Language Models in an Undergraduate Programming Course*. 2024 ACM Conference on International Computing Education Research (ICER 2024). [20% Acceptance Rate]

C.4 - **Aadarsh Padiyath**, Kyle Ashburn, and Barbara Ericson. 2024. *Student Reactions to Integrating Social Justice into a Computer Science Project*. 2024 ACM Technical Symposium on Computer Science Education (SIGCSE TS 2024). [33% Acceptance Rate]

C.3 - **Aadarsh Padiyath**, Tamara Nelson-Fromm, and Barbara Ericson. 2023. *Critiquing Computing Artifacts through Programming Satirical Python Scripts*. 2023 IEEE Conference on Research in Equity and Sustained Participation in Engineering, Computing, and Technology (RESPECT 2023).

C.2 - Duri Long, **Aadarsh Padiyath**, Anthony Teachey, and Brian Magerko. 2021. *The role of collaboration, creativity, and embodiment in AI learning experiences*. 2021 ACM Conference on Creativity and Cognition (C&C 2021).

C.1 - India Irish, Roy Finkelberg, Daniel Nkemelu, Swar Gujrana, **Aadarsh Padiyath**, Sumedha Raman, Chirag Tailor, Rosa Arriaga, Thad Starner. 2020. *Parqr: Automatic post suggestion in the piazza online forum to support degree seeking online masters students*. 2020 ACM Conference on Learning at Scale (L@S 2020).

Working Group Reports

WGR.1 - Barbara J. Ericson, Janice L. Pearce, Susan H. Rodger, Andrew Csizmadia, Rita Garcia, Francisco J. Gutierrez, Konstantinos Liaskos, **Aadarsh Padiyath**, Michael James Scott, David H. Smith, Jayakrishnan M. Warriem, and Angela Zavaleta Bernuy. 2023. *Multi-Institutional Multi-National Studies of Parsons Problems*. In Proceedings of the 2023 Working Group Reports on Innovation and Technology in Computer Science Education (ITiCSE-WGR 2023).

Posters

P.5 - **Aadarsh Padiyath**. 2025. *The Development and Validation of the Critical Reflection and Agency in Computing Scale*. In Proceedings of the 56th ACM Technical Symposium on Computer Science Education V. 2 (SIGCSE 2025).

P.4 - **Aadarsh Padiyath**. 2024. *Assessing Undergraduate CS Students' Attitudes Towards Ethical and Critically Conscious Computing*. 2024 ACM Conference on International Computing Education Research (ICER 2024).

P.3 - **Aadarsh Padiyath**. 2023. *Bringing Realist Synthesis to CS Education Research*. In Proceedings of the 28th ACM Conference on Innovation and Technology in Computer Science Education Vol. 2 (ITiCSE 2023).

P.2 - **Aadarsh Padiyath** and Barbara Ericson. 2023. *Critiquing Computing Artifacts through Programming Satirical Python Scripts*. In Proceedings of the 54th ACM Technical Symposium on Computer Science Education V. 2 (SIGCSE 2023).

P.1 - **Aadarsh Padiyath**, Kyle Ashburn, and Barbara Ericson. 2022. *Student Reactions to Integrating Social Justice into a Computer Science Project*. 2022 Conference on Research in Equity and Sustained Participation in Engineering, Computing, and Technology (RESPECT 2022).

Technical Demonstrations

TD.1 - **Aadarsh Padiyath** and Brian Magerko. 2021. *desAIner: Exploring the Use of "Bad" Generative Adversarial Networks in the Ideation Process of Fashion Design*. 2021 Conference on Creativity and Cognition (C&C 2021).

Invited Publications

IP.2 - **Aadarsh Padiyath**. 2024. *Do I Have A Say In This, Or Has ChatGPT Already Decided For Me?* 2024. Crossroads, The ACM Magazine for Students (XRDS)

IP.1 - Mark Guzdial, Emma Dodoo, Bahare Naimpour, Tamara Nelson-Fromm, and **Aadarsh Padiyath**. 2023. *Putting a Teaspoon of Programming into Other Subjects*. Commun. ACM (CACM)

SERVICE

Invited Talks

TOCE@SIGCSE Technical Symposium

February 26th, 2025

United Kingdom ACM SIGCSE Journal Club

November 4th, 2024

Michigan State University - Justice, Education, and Technology Lab

November 6th, 2023

UM School of Information Faculty Meeting

May 25th, 2023

Invited External Paper Reviewer

Conferences: ACM CHI (2025), ACM/IEEE RESPECT (2022-2025), ACM SIGCSE Virtual (2024), ACM ITiCSE (2024-2025), ACM SIGCSE TS (2023-2025), ACM C&C (2021-2022)

Journals: ACM TOCE (2023-2024), ACM JRC (2024), IJDCI (2024), Computers & Education: AI (2024-2025)

Expert Interview

Gartner Research - *Copilot Adoption for Software Engineers*

November 7th, 2024

Academic Community Service

UM CS Education Research Weekly Seminar Organizer

February 2023 - Present

UM School of Information Application Reviewer

2023, 2024

UM School of Information Doctoral Executive Committee Member

May 2022 - May 2023

Diversity, Equity, Inclusion Outreach Seminars

UM School of Information - Wolverine Pathways

July 19th, 2024

UM School of Information - Community College Summer Institute

June 4th, 2023

UM School of Information - Wolverine Pathways

July 27th, 2022

UM School of Information - LSAMP-NXTGen

July 19th, 2022

UM School of Information - Community College Summer Institute

June 6th, 2022

Mentored Undergraduate Students

UG.3 - Brooke Compton

August 2024 - June 2025

UG.2 - Amy Pang: C.5, C.6

August 2023 - June 2024

UG.1 - Diego Viramontes Vargas: C.5, C.6

August 2023 - June 2024

TEACHING

Teaching Assistantship

SI 206: Data-Oriented Programming - *Python*

Fall 2024, Winter 2025

Informal Teaching

UM Women in Science and Engineering Python Bootcamp

Summers 2022 - 2025