AADARSH PADIYATH

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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   *August 2021 - June 2026*
Ph.D. Candidate in Information   Advisors: Barbara Ericson and Mark Guzdial

Georgia Institute of Technology   *August 2019 - August 2021*
M.S. in Computer Science   Advisors: Brian Magerko and Thad Starner

Georgia Institute of Technology   *August 2016 - August 2019*
B.S. in Computer Science

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, 24.9% 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). **[33% Acceptance Rate]**

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 Gujrania, **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 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 Naimipour, 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 School of Information Doctoral Student Success Series - How to Build Your Mentoring Network   *March 31st, 2025*
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*