## **DIVYA RAMESH**

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## RESEARCH EXPERTISE

Algorithmic Accountability & AI Governance, Design Research, Human-Computer Interaction, Artificial Intelligence, Science and Technology Studies.

## **EDUCATION**

PhD in Computer Science & Engineering University of Michigan, Ann Arbor, Michigan Dissertation: What Lies Beyond Information Disclosure? Balancing the Hopes and Realities	2025 (expected)
of Algorithmic Accountability for Responsible AI Governance	
Committee: Dr. Nikola Banovic (chair) Dr. Mark Guzdial, Dr. Shobita Parthasarathy, Dr.	r. Joyojeet Pal
Graduate Certificate in Science, Technology and Public Policy	2025 (expected)
Ford School of Public Policy, University of Michigan, Ann Arbor, Michigan	
Master of Science in Electrical Engineering	May 2015
University of Southern California, Los Angeles, California	•
Bachelor of Engineering in Electronics and Communication M. S. Ramaiah Institute of Technology, Bangalore, India	June 2013
RECOGNITION	
<u>Fellowships</u>	
Christine Mirzayan Science and Technology Policy Graduate Fellow (\$11,000)	2025
The National Academies of Science, Engineering, and Medicine Barbour Scholar (Tuition, Fees, & Stipend of \$36,084)	2024-25
University of Michigan	
Quad Fellow (\$50,000)  Initiative of Australia, India, Japan, and the United States Governments	2023-24
Consortium for the Science of Sociotechnical Systems Research Institute Scholar	2024
<u>Awards and Honors</u>	
Pragnesh Jay Modi Best Student Paper Award (\$1000)	AAMAS 2020
Best Paper Nomination	AAMAS 2020
Graduate Student Service Award for Excellence (\$1000)	2021
Johns Hopkins University AI Ethics & Governance Travel Grant Award	2024
Google Travel Grant (\$4000)	2022
Rackham Conference & Professional Travel Grants (~\$3000)	2019-24

University of Michigan Nominee for Google PhD Fellowship

2021

#### **PUBLICATIONS**

# Peer-Reviewed Full Papers

**Divya Ramesh**, Caitlin Henning, Nel Escher, Haiyi Zhu, Min Kyung Lee, Nikola Banovic. Ludification as a Lens for Algorithmic Management: A Case Study of Gig Workers' Experiences of Ambiguity in Instacart Work. In *ACM Conference on Designing Interactive Systems Conference* (DIS '23). Pittsburgh, PA, USA.

**Divya Ramesh**, Vaishnav Kameswaran, Ding Wang, Nithya Sambasivan. How Platform-User Power Relations Shape Algorithmic Accountability: A Case Study of Instant Loan Platforms and Financially Stressed Users in India. In *ACM Conference on Fairness, Accountability and Transparency* (FAccT 2022). Seoul, South Korea. (*Contributed to public conversation, shaping policy outcomes for Google. See Press*).

Kori Inkpen, Shreya Chappidi, Keri Mallari, Besmira Nushi, **Divya Ramesh** et al. Advancing Human-AI Complementarity: The Impact of User Expertise and Algorithmic Tuning on Joint Decision Making. In *ACM Transactions on Computer-Human Interaction* (TOCHI 2022).

**Divya Ramesh**, Anthony Liu, Jean Song, Andres Echeverria, Nicholas Waytowich, Walter Lasecki. Yesterday's Reward is Today's Punishment: Contrast Effects in Human Feedback to Reinforcement Learning Agents. In *Proceedings of the 19th International Conference on Autonomous Agents and Multiagent Systems* (AAMAS 2020). Auckland, New Zealand.

- **P** Best Paper Award Nominee
- Pragnesh Jay Modi Best Student Paper

Keri Mallari, Kori Inkpen, Paul Johns, Sarah Tan, **Divya Ramesh**, Ece Kamar. Do I Look Like a Criminal? Examining How Race Information Presentation Impacts Human Judgement of Recidivism. In *Proceedings of the ACM Conference on Human Factors in Computing Systems* (CHI 2020). Honolulu, Hawaii.

Apoorva, N., **Divya Ramesh**, K. Manikantan, and S. Ramachandran. Optimal Multilevel Thresholding based on Tsallis Entropy using Fibonacci Particle Swarm Optimization for Improved Image Segmentation. In *2012 IEEE International Conference on Communication, Information & Computing Technology (ICCICT 2012)*. Mumbai, India.

### Manuscripts Under Review and Submission

Tamara Nelson-Fromm, **Divya Ramesh**, Nikola Banovic, Mark Guzdial, Atul Prakash, Emily Mower-Provost. 2024. Paper on AI and Cybersecurity Education. *Under R&R at a computing education venue*.

**Divya Ramesh**, Shobita Parthasarathy, Nikola Banovic. Paper informing the design space of algorithmic accountability interventions. *Final chapter of the dissertation. In preparation for HCI/AI ethics venue.* 

Neil Band, Satwik Dutta, Joshua Ingram, Sathvik Iyengar, Raahina Malik, Melinda Paduani, **Divya Ramesh\***, Sharicka Zutshi. 2025. International, Cross-Disciplinary, and Early-Career Perspectives on AI Governance. \**Equal Contribution* 

Tsedeniya Amare, Ananya Kasi, **Divya Ramesh**, Nikola Banovic. Paper on contestability in human-centered AI. *In preparation for an HCI venue*.

# Peer-Reviewed Short Papers

Nel Escher, Jeffrey Bilik, Alexander Miller, Jennifer Jiyoung Huseby, **Divya Ramesh**, Alice Liu, Sam Mikell, Nina Cahill, Ben Green, Nikola Banovic. 2022. Cod(e)ifying The Law. In *Programming Languages and the Law* (Prolala) 2022.

**Divya Ramesh**, Bradford A. Folkens. Towards Real-Time Image Captioning using Crowdsourcing and Computer Vision. In *HCOMP Workshop on Human Computation for Image and Video Analysis* (GroupSight 2017). *Quebec City, Quebec*.

Ajit Krisshna, NL., N. Apoorva, Deepak V. Kadetotad, **Divya Ramesh**, Harsha Bhatia, Madhumita Kedlaya, and B. Sujatha. A Brain-Computer Interface-based Security System." In *2013 IEEE Texas Instruments India Educators' Conference*, pp. 248-252, 2013.

#### **Patents**

**Ramesh D.** and Folkens B. A. 2020. Content Based Image Management and Selection. US Patent US10831820B2. (Assigned to CloudSight Inc.)

#### Public Writing and Scholarship

**Divya Ramesh** and Nikola Banovic. Ethical Guidelines for Research Using Pervasive Data. Comments submitted to National Telecommunications and Information Administration. January 15, 2025. Regulations.gov. Docket No. 241204-0309.

Madison Cutler, Erin Keith, Molly Kleinman, Marita Ky, Yvonne Navarette, Kaci Pellar, **Divya Ramesh**, and Eric Welsby. Community Partnerships Playbook: How to Create Equitable Partnerships Between Technical and Community Experts. 2024.

Joyojeet Pal, Soham De, Arshia Arya, **Divya Ramesh**, and Meg Young. Social Media and Society in India. 2023

#### **INVITED PANELS & TALKS**

On the Politics of Algorithmic Accountability: Comparing the Impacts of AI on Financially Vulnerable Communities in India and the US. In *HCIL Brown Bag Talks Lunch Series*. University of Maryland, College Park, USA. April 2024.

A Tiny Slice of Human-Centered AI. In *Building Bridges Talk Series*. Michigan State University, East Lansing, USA. April 2024.

Bridging Critique and Design to Enhance Responsible AI Innovation. In *EECS 593: Introduction to Human-Computer Interaction*. University of Michigan, Ann Arbor, USA. 2023.

Panel on Human-AI Interaction for CSCI 598: Social and Collaborative Computing, Colorado School of Mines, USA. October 2023.

Investing in the Next Generation of U.S.-India Ties: The Quad Fellowship in conversation with NSC Chief of Staff Curtis Ried. *USIBC 48th India Ideas Summit and Annual General Meeting*. Washington DC, USA. 2023.

Human-AI Interaction through an Empirical Lens. In *EECS 593: Introduction to Human-Computer Interaction*. University of Michigan, Ann Arbor, USA. 2021.

Human-AI Interaction for Accessibility. In *ECCV VizWiz Grand Challenge Workshop*. Germany. 2018. (declined).

#### INVITED WORKSHOPS AND CONSORTIA

IBM Research and ATIH Workshop on AI Governance	2024
Rackham Graduate Scholar Exhibits of Excellence	2024
The Consortium for the Science of Sociotechnical Systems Summer Research Institute	2024
Data and Society Public Technology Leadership Collaborative Early Career Workshop	2024
Surfacing Structural Barriers to Community-Collaborative Approaches in HCI	2023

#### MEDIA MENTIONS AND PRESS

Shereen Bhan discusses the future of India-US ties, strategic importance of the Quad and how the Quad Fellowship is building the next generation of leaders with NSC Chief of Staff Curtis Ried & Quad Fellows Divya Ramesh and Parris Washington. *CNBC TV-18*. June 16, 2023.

Ford School STPP scholars receive inaugural Quad Fellowships, U-M Ford School News, January 3, 2023.

Divya Ramesh chosen for Quad Fellowship in interdisciplinary studies in STEM, *U-M CSE News*, December 15, 2022.

U-M students chosen for new STEM fellowship, *UM University Record*, December 12, 2022.

Risky teleoperation, rocket league simulation and zoologist multiplication, *TechCrunch Perceptron*, June 2022.

Research on human biases in AI learning earns best student paper award, Michigan CSE News, May 2020.

## PROFESSIONAL EXPERIENCE

THOTESSION TELEVICE	
Research Assistant Science, Technology and Public Policy Program, UM Ford School of Public Policy, Ann Arbor Mentor: Dr. Molly Kleinman, Dr. Shobita Parthasarathy	May 2023 – Dec 2023
Research Intern Google Research, Mountain View, CA (remote). Host: Dr. Nithya Sambasivan	Jun 2021 – Aug 2021
Research Assistant University of Michigan, Ann Arbor Mentor: Dr. Mark Guzdial	Jan 2021 – May 2021
Research Intern Microsoft Research, Redmond, Washington Host: Dr. Kori Inkpen. Mentors: Dr. Besmira Nushi, Dr. Ece Kamar	Jun 2019 – Aug 2019
R & D Software Engineer - Deep Learning and Computer Vision	Aug 2015 - May 2018

CloudSight Inc., Los Angeles, California

# **Computer Vision Intern**

CloudSight Inc., Los Angeles, California

## May 2014 – June 2015

#### **TEACHING EXPERIENCE**

Graduate Student Instructor, Introduction to Human-Computer Interaction Research	Fall 2021
Planning Committee, Introduction to Graduate Studies, University of Michigan.	Fall 2020

## **LEADERSHIP AND SERVICE**

# Service to Profession

Associate Chair (Qualitative Methods), ACM CHI.	2025
Program Committee, ACM FAccT. 202	24-Present
Reviewer, ACM SIGCHI (Outstanding Review x3), ACM CSCW, ACM UIST, AAAI HCOMP.	2019-24
Student Volunteer, ACM FAccT Conference.	2021-22

# Service to University and Department

Co-Founder, VoiCSEs, University of Michigan.	2022-23
Chair, ECSEL+, University of Michigan.	2020-23
Co-Founder, Tech + Society Reading Group in CSE, University of Michigan.	2020
Member, Inclusive Excellence Committee in CSE, University of Michigan.	2020

#### **MENTORING**

Ananya Kasi, Undergraduate Student, University of Michigan.	2023-Present
Aatif Nisar Dar, Research Assistant, IIT Delhi, India	2023-24
Caitlin Henning, Undergraduate Student, University of Michigan.	2021-22
Tsedeniya Amare, Undergraduate Student, Addis Ababa University, Ethiopia.	2021-22
Andres Echeverria, Undergraduate Student, University of Michigan.	2018-19
Mujtaba Asif, Data Scientist, CloudSight Inc.	2017-18
Hengyue Liu, Computer Vision Intern, CloudSight Inc.	2016

#### **OUTREACH**

Mentor for underrepresented prospective graduate students, Bahujan Economists, India.	2023-24
After-school tutor for at-risk youth, Peace Neighborhood Center, Ann Arbor, Michigan.	2020
Scratch programming & Hummingbird robotics tutor for at-risk youth, NYA, California.	2017-18

# **SKILLS**

Qualitative Research Methods: In-Depth Interviews, Observations, Grounded Theory, Reflexive Thematic Analysis, Critical Discourse Analysis

Quantitative & Computational Methods: Experimental Studies, Crowdsourcing, Supervised and Unsupervised Machine Learning, Deep Learning (CNNs, RNNs), Reinforcement Learning

Programming Languages: Python, Ruby, C/C++, MATLAB, LaTeX
Libraries & Frameworks: TensorFlow, PyTorch, Caffe (Deep Learning), OpenCV (Computer Vision), NLTK, Gensim (NLP)