

# Sachin R. Pendse: Curriculum Vitae

Georgia Institute of Technology  
CODA Tech Square  
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## Research Interests and Skills

I investigate how marginalization and technology design together shape experiences of distress when people interact with mental health technologies. My work uses large-scale linguistic analyses with in-depth qualitative inquiry to answer questions around how we can design mental health technologies to be more equitable, sensitive to a person's cultural expectations around support, and attentive to the social factors that limit access to care. I take an interdisciplinary and justice-centered approach to analyzing sociotechnical gaps in diverse mental health technologies. My work has been published at top-tier venues for human-computer interaction and digital health, receiving Best Paper (top 1% of submissions) and Best Paper Honorable Mention (top 5% of submissions) awards at CHI. I also have experience initiating and co-writing grants, with \$148,500 of cumulative funds generated from grant applications for which I was the lead student author.

## Education

### Doctor of Philosophy, Human-Centered Computing

2019 - 2024 (expected)

Georgia Institute of Technology

*Advisors:* Munmun De Choudhury and Neha Kumar

*Committee:* Michael Best, Andrea Grimes Parker, Jessica Schleider, Amit Sharma

Overall GPA: 4.00/4.00

### Master of Science, Computer Science

August 2017 - May 2018

Brown University

*Advisor:* Jeff Huang

Overall GPA: 4.00/4.00

### Bachelor of Arts, Computer Science

August 2013 - May 2017

### Bachelor of Arts, International Relations

Brown University

Overall GPA: 3.71/4.00

## Publications

*Publication venues*<sup>1</sup> in *blue*. *Awards* in *purple*.

### Refereed Conference and Journal Articles

1. **Pendse, Sachin R.**, Talie Massachi, Jaleh Mahdavi-moghaddam, Jenna Butler, Jina Suh, and Mary Czerwinski. Towards Inclusive Futures for Worker Wellbeing. **Proceedings of the ACM on Human-Computer Interaction, CSCW (PACM HCI) 2024**. ACM, 2024.
2. **Pendse, Sachin R.**, Neha Kumar, and Munmun De Choudhury. Marginalization and the Construction of Mental Illness Narratives Online: Foregrounding Institutions in Technology-Mediated Care. **Proceedings of the ACM on Human-Computer Interaction, CSCW (PACM HCI) 2023**. ACM, 2023.

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<sup>1</sup>Note: top-tier computer science conferences like CHI and CSCW employ a rigorous peer-review process, typically involving 3-4 specialized reviewers, and are meant exclusively for archival-quality papers. For further information, you can refer to <http://portal.acm.org/citation.cfm?id=1743546.1743569>.

3. Rochford, Benjamin\*, **Sachin R. Pendse\***, Neha Kumar, and Munmun De Choudhury. Leveraging Symptom Search Data to Understand Disparities in U.S. Mental Health Care: Demographic Analysis of Search Engine Trace Data. **JMIR Mental Health**. 2023. \*Equal contribution.
4. **Pendse, Sachin R.**, Daniel Nkemu, Nicola J. Bidwell, Sushrut Jadhav, Soumitra Pathare, Munmun De Choudhury, and Neha Kumar. From Treatment to Healing: Envisioning a Decolonial Digital Mental Health. In **Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems**. ACM, 2022. **Best Paper Honorable Mention**.
5. **Pendse, Sachin R.**, Amit Sharma, Aditya Vashistha, Munmun De Choudhury, and Neha Kumar. "Can I Not Be Suicidal On a Sunday?": Understanding Technology-Mediated Pathways to Mental Health Support. In **Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems**. ACM, 2021. **Best Paper**.
6. Massachi, Talie\*, Grant Fong\*, Varun Mathur\*, **Sachin R Pendse\***, Gabriela Hofer, Jessica J Fu, Chong Wang, Nicole R Nugent, Megan L Ranney, Daniel P Dickstein, Michael F Arme, Jeff Huang. Sochiatrist: Signals of Affect in Messaging Data. **Proceedings of the ACM on Human-Computer Interaction, CSCW (PACM HCI) 2020**. ACM, 2020. \*Equal contribution.
7. **Pendse, Sachin R.**, Faisal M. Lalani, Munmun De Choudhury, Amit Sharma, and Neha Kumar. Like Shock Absorbers: Understanding the Human Infrastructures of Technology-Mediated Mental Health Support. In **Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems**. ACM, 2020.
8. **Pendse, Sachin R.**, Kate Niederhoffer, Amit Sharma. Cross-Cultural Differences in the Use of Online Mental Health Support Forums. **Proceedings of the ACM Conference on Computer Supported Cooperative Work and Social Computing, CSCW 2019**. ACM, 2019.
9. Naslund, John A., Pattie P. Gonsalves, Oliver Gruebner, **Sachin R. Pendse**, Stephanie L. Smith, Amit Sharma, and Giuseppe Raviola. "Digital Innovations for Global Mental Health: Opportunities for Data Science, Task Sharing, and Early Intervention." **Current Treatment Options in Psychiatry**: 1-15. 2019.
10. **Pendse, Sachin R.**, Naveena Karusala, Divya Siddarth, Pattie Gonsalves, Seema Mehrotra, John A. Naslund, Mamta Sood, Neha Kumar, and Amit Sharma. Mental Health in the Global South: Challenges and Opportunities in HCI for Development. **Proceedings of the ACM SIGCAS Conference on Computing and Sustainable Societies, COMPASS 2019**. ACM, 2019.
11. Nugent, Nicole R., **Sachin R. Pendse**, Heather T. Schatten, and Michael F. Arme. "Innovations in Technology and Mechanisms of Change in Behavioral Interventions." **Behavior modification** (2019): 0145445519845603.
12. Pruksachatkun, Yada\*, **Sachin R. Pendse\***, and Amit Sharma. Moments of Change: Analyzing Peer-Based Cognitive Support in Online Mental Health Forums. **Proceedings of the CHI Conference on Human Factors in Computing Systems, CHI 2019**, p. 64. ACM, 2019. \*Equal contribution.

#### Refereed Workshop Articles and Presentations

1. Patel, Dilisha\*, **Sachin Pendse\***, Munmun De Choudhury, Sarah Dsane, Kaylee Payne Kruzan, Neha Kumar, Aneesha Singh, and Mark Warner. "Information-Seeking, Finding Identity: Exploring the Role of Online Health Information in Illness Experience." In Companion Publication of the **2022 Conference on Computer Supported Cooperative Work and Social Computing**, pp. 263-266. 2022. \*Equal contribution.

2. Karusala, Naveena, Azra Ismail, Karthik S Bhat, Aakash Gautam, **Sachin R. Pendse**, Neha Kumar, Richard Anderson, Madeline Balaam, Shaowen Bardzell, Nicola J Bidwell, Melissa Densmore, Elizabeth Kaziunas, Anne Marie Piper, Noopur Raval, Pushpendra Singh, Austin Toombs, Nervo Verdezoto, Ding Wang. (2021) The Future of Care Work: Towards a Radical Politics of Care in CSCW Research and Practice. Companion Publication of the [2021 Conference on Computer Supported Cooperative Work and Social Computing \(CSCW\)](#).
3. Liang, Calvin, Emily Tseng, **Sachin R. Pendse**, Crystal Lee, Kimberley Allison, Neilly H. Tan, Ruotong Wang, Alexandra To, Amy Zhang. (2021). Subtle CSCW Traits: Tensions Around Identity Formation and Online Activism in the Asian Diaspora. Companion Publication of the [2021 Conference on Computer Supported Cooperative Work and Social Computing \(CSCW\)](#).
4. Siddarth, Divya\*, **Sachin R. Pendse\***, Amit Sharma, Joyojeet Pal. (2019). Giving in the Short Term: Putting Research in Action Alongside Marginalized Groups. Presented at [Sensitive HCI Workshop at CHI 2019](#). \*Equal contribution.
5. **Pendse, Sachin R.**, Mamta Sood, Seema Mehrotra, Amit Sharma. Designing Culturally Aware and Resource Appropriate Digital Mental Health Interventions. In [Tenth International Conference on Information and Communication Technologies and Development \(ICTD '19\)](#), Ahmedabad, India, 2019.

#### Other Non-Peer Reviewed Publications

1. Rosenfeld, Adam, **Sachin R. Pendse**, and Nicole R. Nugent. How mobile health applications can help treat depression. [The Brown University Child and Adolescent Behavior Letter](#) 33, no. 9 (2017): 1-6.
2. **Pendse, Sachin R.**, and Nicole R. Nugent. Mental health challenges and opportunities in rural communities. [The Brown University Child and Adolescent Behavior Letter](#) 33, no. 6 (2017): 1-7.

## Grants, Awards, and Funding

Total funds generated as lead student author: \$148,500 (2016-2024)

**Microsoft Research Accelerate Foundation Models Academic Research Initiative** 2023 - 2024  
 Funded to study how individuals are utilizing Large Language Model (LLM) chatbots for mental health support. Lead PhD student on this project, supporting grant writing and research implementation.  
 Total Funded Amount: \$20,000

**GVU Center at Georgia Tech** 2022, 2023  
 Selected as a finalist for the Foley Scholars Program, in both 2022 and 2023.

**Institute for People and Technology (IPaT) Research Fellowship, Georgia Tech** 2022  
 Funded to study how individuals in Mental Health Professional Shortage Areas (MHPSAs) come to understand mental health experiences, and the role of technology-mediated tools in that process.  
 Total Funded Amount: \$25,000

**Microsoft AI for Accessibility (AI4A)** 2020 - 2021  
 Funded to study the Indian mental health helpline system, with a specific focus towards understanding how technology might be used to more effectively and quickly match volunteers with callers in need. Lead PhD student for this project, supporting community partnerships and grant writing.  
 Total funded amount: \$100,000

**Center for Contemporary South Asia Fellowship, Brown University** 2016 - 2017  
 Funded by Brown University to conduct an independent research project on social media for political

activism among the Tibetan exile community of Dharamsala, India, including a literature review, ethnographic interviews and fieldwork, and social media analysis. When awarded, this was called the India Initiative Undergraduate Research Fellowship.

Total funded amount: \$3,500

## Teaching

**Graduate Teaching Assistant**, Georgia Tech

*Fall 2021 - Spring 2024*

Classes: Human-Centered Computing Seminar (Fall 2021) Technology and Equity (Fall 2022), Social Computing (Spring 2024)

**Undergraduate Teaching Assistant**, Brown University

*Fall 2014 - Spring 2016*

Classes: Cybersecurity and International Relations (Spring 2017, 2016, 2015), User Interface Design (Fall 2015), Belonging and Displacement: Cross-Cultural Identities (Fall 2014)

## Work Experience

*Programming languages and frameworks are in teal. HCI research methods are in brown-orange.*

**Research Intern**, Microsoft Research

*Summer 2022*

As an intern for the Human Understanding and Empathy (HUE) Team, mentored by Dr. Mary Czerwinski, Dr. Jenna Butler, and Jina Suh, I studied cross cultural differences in how individuals came to express experiences with distress and wellbeing during the mass move to remote work in 2020. This mixed-methods work bears direct implications for creating remote workplaces that are less taxing and stressful for workers.

**Methods and Tools:** Sentiment Analysis, Regression and Predictive Modeling, Survey Design and Analysis, Significance Testing, Study Design (including ideation, IRB approval, implementation, publication drafting, and submission), Open Coding, Thematic Analysis

**NLP Research Intern**, Impossible Foods

*Summer 2021*

In this role, I used computational techniques to analyze qualitative sensory data and automatically gather insights from free-text comments. Through leveraging traditional methods pulled from sensory science research and literature, I created a human-in-the-loop NLP system that enabled sensory scientists to more quickly find and analyze subtle differences between samples.

**Methods and Tools:** Python, Streamlit, SQL, Topic Modeling, Language Modeling, System Design, User Interface Design, Iterative Design, Stakeholder Interviews

**Research Intern**, Microsoft Research India

*Summer 2020*

I designed and led an interview study to understand the different ways that the unique and identity-based needs of callers to Indian mental health helplines are not met. Through using a design justice based approach, I analyzed how the needs of callers are marginalized by interactions between the technical design of the helpline and societal/structural factors. This work was accepted for publication at ACM SIGCHI 2021.

**Methods and Tools:** Study Design (including ideation, IRB approval, implementation, publication drafting, and submission), Open Coding, Thematic Analysis, User Recruitment, User Targeting (via Facebook Ads and Google Ads), Semi-Structured Interviewing, Iterative Prototyping and Design

**Research Fellow**, Microsoft Research India

*July 2018 - August 2019*

As a Research Fellow in Microsoft Research, within the Technology in Emerging Markets group, I used quantitative and qualitative methods to investigate cultural differences in how people conceptualize their mental health (and implications for platforms). This resulted in 6 different publications, five of which were in ACM-affiliated venues (CHI, COMPASS, and CSCW). I also continue to lead a project building on this work alongside my former advisor, Amit Sharma, investigating how people use mental health helplines

globally.

**Methods and Tools:** Social Media Analysis, Amazon Mechanical Turk, Study Design, Sentiment Analysis, Regression and Predictive Modeling, Survey Design and Analysis, Significance Testing, Information Architecture/User Flow, Semi-Structured Interviewing, Open Coding, Thematic Analysis, Python, SQL, Flask, HTML/CSS/JavaScript, Node.js

#### **Software Engineering Intern, Microsoft Garage**

Summer 2017

Wrote Android and iOS applications in C# with the use of MVVM architecture patterns and Xamarin Studio. Worked as part of an interdisciplinary team to build a cross-platform and enterprise-standard application.

**Methods and Tools:** C#, Cross-Platform Mobile Applications (Android and iOS) via Xamarin Studio, HTML/CSS/JavaScript

#### **Engineering and Analytics Intern, Cisco Systems**

Summer 2014 - Summer 2016

Used HTML/CSS/JavaScript/D3 frontend, Python/NodeJS backend, and CouchDB database to create an predictive analytics dashboard for sales engineers to interface with the data and use it as a guide to where to devote more effort to pitch services.

**Methods and Tools:** Python, NodeJS, CouchDB, HTML/CSS/JavaScript/D3

## **Public Communication, Social Impact and Leadership**

### **Invited Talks**

From Treatment to Healing, Google Trust & Safety Seminar

May 2023

Centering the Role of Identity in Technology-Mediated Support, Cornell InfoSci Seminar

March 2023

Centering Identity in Digital Mental Health, Stony Brook University

February 2023

Envisioning a Decolonial Digital Mental Health, Center for Applied Data Ethics, USF

June 2022

Towards Mental Health Equity, INFO Science Seminar Series at CU Boulder

March 2022

Designing for Healing, Google UX Research APAC

June 2021

### **Mental Health Advocacy**

Executive Team Lead, Peer Support, CAREspaces

Summer 2020 - present

Health and Wellness Advocate, Brown Department of Computer Science

Spring 2017 - Spring 2018

Peer Mental Health Advocate, Project LETS

Fall 2016 - Spring 2018

### **Reviewing**

Proceedings of the ACM on Human-Computer Interaction, CSCW (PACM HCI)

2020 - present

ACM CHI Conference on Human Factors in Computing Systems (CHI)

2020 - present

Recognized for Outstanding Review, CHI 2021