

# Aakash Gautam

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## PROFESSIONAL POSITIONS AND RANKS HELD

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### Assistant Professor

*School of Computing and Information, University of Pittsburgh*

September 2023 – Present

*Pittsburgh, Pennsylvania*

### Assistant Professor

*Computer Science, San Francisco State University*

August 2021 – August 2023

*San Francisco, California*

### Software Development Engineer

*PayPal*

June 2013 – June 2015

*Bangalore, India*

## EDUCATION

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### Virginia Tech

*Ph.D. in Computer Science*

August 2015 – August 2021

*Blacksburg, VA*

Dissertation: Designing Socio-Technical Systems to Illuminate Possibilities for a Vulnerable Population

🏆 *SIGCHI Outstanding Dissertation Award in 2022*

### Motilal Nehru National Institute of Technology

*B.Tech in Computer Science and Engineering*

June 2009 – May 2013

*Allahabad, India*

## PUBLICATIONS

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\* denotes shared first authorship.

### Peer-Reviewed Conference Papers

- Gandu, A. and **Gautam, A.** (2025). Conflict in Community-Based Design: A Case Study of a Relationship Breakdown. In *Proceedings of the ACM on Human-Computer Interaction, 9(7) (CSCW'25)*
- Khatiwada, P., Cuiba, A., Nayak, A., Mauriello, M.L., **Gautam, A.** (2025). Regulating Social Media: Surveying the Impact of Nepali Government's TikTok Ban. In *Proceedings of the ACM on Human-Computer Interaction, 9(7) (CSCW'25)*
- Kong, E., Dilinika, J. S., Nie, X., **Gautam, A.**, Huang, K. T. (2025). Measuring Socio-Ethical Engagement with Generative AI: Scale Development via Exploratory Factor Analysis. In *Proceedings of the Association for Information Science and Technology, 62(1)*
- Sebastian, P., Sharma, S., Iivari, N., Kinnula, M., Monga, C., **Gautam, A.** (2025). "I'd love a microchip in my brain because there would be no homework": School Children Reimagine the Future of Education with Emerging Technologies. In *Proceedings of the 28th International Academic Mindtrek Conference*
- **Gautam, A.** (2025). Preparing HCI Students to Address Structural Problems Through Systems Thinking. In *Proceedings of the 7th Annual Symposium on HCI Education (EduCHI'25)*
- Wortman, K. A., **Gautam, A.**, Hug, S., Inventado, P. S., Kazerouni, A. M., Lehr, J., ... Wood, Z. (2025). Reflecting on Practices to Integrate Socially Responsible Computing in Introductory Computer Science Courses. In *Proceedings of the 56th ACM Technical Symposium on Computer Science Education (SIGCSE'25)*
- Dsane-Nsor, S., **Gautam, A.**, Fuentes Toro, C., Toffah, G. K., Verdezoto Dias, N., Joolay, Y., Densmore, M. (2025). Navigating sociocultural tensions in prenatal care: opportunities for digital health from diverse stakeholders in Techiman, Ghana. In *Computer Supported Cooperative Work, Vol. 34*. Springer.

- **Gautam, A.**, Gandhi, K., & Sendejo, J.E. (2024). Enhancing Reentry Support Programs Through Digital Literacy Integration. In *Designing Interactive Systems Conference (DIS '24)*
- **Gautam, A.**, Kulkarni, A., Hug, S., Lehr, J., & Yoon, I. (2024). Socially Responsible Computing in an Introductory Course. In *Proceedings of the 55th ACM Technical Symposium on Computer Science Education (SIGCSE'24)*
- Narins, L., Scott, A. T., **Gautam, A.**, Kulkarni, A., Castanon, M., Kao, B., Ihorn, S., Siu, Y., Mason, J. M., Blum, A. M., Yoon, I. (2023). Validated Image Caption Rating Dataset. In *NeurIPS 2023*.  
🏆 *Spotlight Award*
- **Gautam, A.**, & Tatar, D. (2022). Empowering Participation Within Structures of Dependency. In *Proceedings of the 17th Participatory Design Conference (PDC'22)*
- Bhatti, N., Mbakwe, A. B., Nnadi, S., Clarke, G. S., **Gautam, A.**, McCrickard, D. S., Kelliher, A. (2022). Intimate Narratives: An Assets-Based Approach To Develop Holistic Perspectives of Student Mothers' Lives and Their Use of Technology in Parenting. In *Proceedings of 26th ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW'22)*
- **Gautam, A.\***, Wong-Villacres, M.\*, Tatar, D., & Disalvo, B. (2021). Reflections on Assets-Based Design: A Journey Towards A Collective of Assets-Based Thinkers. In *Proceedings of the ACM on Human-Computer Interaction, 5 (CSCW2)*
- Venkatagiri, S., **Gautam, A.**, & Luther, K. (2021). Crowdsolve: Managing tensions in an expert-led crowdsourced investigation. In *Proceedings of the ACM on Human-Computer Interaction, 5 (CSCW1)*
- **Gautam, A.**, Harrison, S., & Tatar, D. (2020). Crafting, Communality, and Computing: Building on Existing Strengths To Support a Vulnerable Population. In *Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems (CHI'20)*
- **Gautam, A.**, Wall Bortz, W., & Tatar, D. (2020). Abstraction Through Multiple Representations in an Integrated Computational Thinking Environment. In *Proceedings of the 51st ACM Technical Symposium on Computer Science Education (SIGCSE'20)*
- Wall Bortz, W., **Gautam, A.**, Lipscomb, K., & Tatar, D. (2019). Integrating Computational Thinking into Middle School Science: A Search for Synergistic Pedagogy. In *2019 ASEE Southeastern Section Conference*.  
🏆 *Best Paper Award*
- **Gautam, A.**, Shrestha, C., Tatar, D., & Harrison, S. (2018). Social Photo-elicitation: The Use of Communal Production of Meaning in a Sensitive Setting. In *Proceedings of 21st ACM Conference on Computer-Supported Cooperative Work and Social Computing (CSCW'18)*  
🏆 *Recognition for Contribution to Diversity and Inclusion*
- **Gautam, A.**, Wall Bortz, W., Tatar, D., Lipscomb, K., Rivale, S., Orsino, C. & Etzkorn, F. (2017). Finding Abstraction-Comprehension Balance: A Study of Model-Based Integrated Science and Computational Thinking Application. *American Educational Research Association (AERA'17)*

## Journal Articles

- Kazerouni, A. M., Lee, M., Hubbard Cheuoua, A., **Gautam, A.**, Hooshmand, S., Inventado, P. S., ... Wood, Z. (2018). The Benefits of Socially Responsible Computing in Early Computing Courses: A Multi-Institutional Study at Primarily Undergraduate Hispanic-Serving Institutions. In *ACM Transactions on Computing Education (TOCE)*
- Fuchs, W., McDonald, A. R., Gautam, A., Kazerouni, A. M. (2024). Recommendations for improving end-user programming education: A case study with undergraduate chemistry students. *Journal of Chemical Education, 101*(8)

- Wall Bortz, W., **Gautam, A.**, Tatar, D., & Lipscomb, K. (2020). Missing in Measurement: Why Identifying Learning in Integrated Domains is so Hard. *Journal of Science Education and Technology (JOST)*, 29(1)
- **Gautam, A.**, Williams, D., Terry, K., Robinson, K., & Newbill, P. (2018). Mirror Worlds: Examining the Affordances of a Next Generation Immersive Learning Environment. *TechTrends*

## Book Chapters

- Wall Bortz, W., **Gautam, A.**, Tatar, D., & Lipscomb, K. (2019). The Availability of Pedagogical Responses and the Integration of Computational Thinking. *Integrating Digital Technology in Education: School-University-Community Collaboration*, 81.

## Peer-Reviewed Short Papers

- Romero Lauro, Q., **Gautam, A.**, Kotturi, Y. (2025). BizChat: Scaffolding AI-Powered Business Planning for Small Business Owners Across Digital Skill Levels. In *Adjunct Proceedings of the 4th Annual Symposium on Human-Computer Interaction for Work (CHI WORK)*
- Kong, E., Huang, K. T., **Gautam, A.** (2024). Envisioning Possibilities and Challenges of AI for Personalized Cancer Care. In *Companion Publication of the 2024 Conference on Computer-Supported Cooperative Work and Social Computing (CSCW'24)*.
- **Gautam, A.** Reconfiguring Participatory Design to Resist AI Realism. In *Proceedings of the 18th Participatory Design Conference (PDC'24)*
- Han, M. & **Gautam, A.** (2023). A Case For Supporting Translanguaging in Technology. In *Design of Interactive Systems (DIS'23)*
- Shrestha, C., Tatar, D., **Gautam, A.**, & Stewart, M. (2022). Reinfrastructuring Classroom Discourse with ThoughtSwap. In *Proceedings of Computer Supported Collaborative Learning (CSCL'22)*
- **Gautam, A.**, Harrison, S., & Tatar, D. (2020). p for political: Participation Without Agency Is Not Enough. In *Proceedings of the 16th Participatory Design Conference (PDC'20)*
- **Gautam, A.**, Shrestha, C., & Tatar, D. (2019). Beyond Saving: A Case for Agency-First Approach Against Domestic Violence. In *Proceedings of the Tenth International Conference on Information and Communication Technologies and Development (ICTD'19)*
- **Gautam, A.**, Harrison, S., & Tatar, D. (2019). Adding Voices to Support Web Navigation Among a Low Digital Literacy Group. In *Companion Publication of the 2019 on Design of Interactive Systems (DIS'19)*.
- **Gautam, A.**, Shrestha, C., Kulak, A., Harrison, S., & Tatar, D. (2018). Participatory Tensions in Working with a Vulnerable Population. In *Proceedings of the 15th Conference on Participatory Design (PDC'18)*
- **Gautam, A.**, Wall Bortz, W., & Tatar, D. (2017). Case for Integrating Computational Thinking and Science in a Low-Resource Setting. In *Proceedings of the Ninth International Conference on Information and Communication Technologies and Development (ICTD'17)*
- **Gautam, A.**, Vishwasrao, S., & Servant, F. (2017). An empirical study of activity, popularity, size, testing, and stability in continuous integration. In *Proceedings of the 14th International Conference on Mining Software Repositories (MSR'17)*

## Workshops or Panels (Organized)

- Moin, S., Cannanure, V. K., Mthoko, H., ..., **Gautam, A.**, ... Sturm, C. (2025). HCI Across Borders: Building a Collective Vision for the Future. In *Proceedings of the Extended Abstracts of the CHI Conference on Human Factors in Computing Systems (CHI'25)*.
- Sharma, V., Kumar, N., Mirza-Babaei, P., **Gautam, A.**, Lin, C., Wulf, V., Andalibi, N. (2024). Nurturing Digitally Mediated Post-Growth Work Economies. In *Companion Publication of the 2024 Conference on Computer-Supported Cooperative Work and Social Computing (CSCW'24)*.
- **Gautam, A.**, Tatar, D., Matheis, C., & Kannabiran, G. (2024). Surfacing Conflicts in Participatory Design: Methodological Considerations. In *Proceedings of the 18th Participatory Design Conference (PDC'24)*
- Ko, A. J., Castro, F., **Gautam, A.**, Hu, A. D., Kingsley, S., Lachney, M., & Yadav, A. (2024). Computing, Education, and Capitalism. In *Proceedings of the 55th ACM Technical Symposium on Computer Science Education (SIGCSE'24)*
- Karusala, N., Ismail, A., Bhat, K. S., **Gautam, A.**, Pendse, S. R., Kumar, N., ... & Wang, D. (2021). The Future of Care Work: Towards a Radical Politics of Care in CSCW Research and Practice. In *Companion Publication of the 2021 Conference on Computer Supported Cooperative Work and Social Computing (CSCW'21)*
- **Gautam, A.\***, Wong-Villacres, M.\*, Roldan, W., Pei, L., Dickinson, J., Ismail, A., ... Yip, J. (2020). From Needs to Strengths: Operationalizing an Assets-Based Design of Technology. In *Companion Publication of the 2020 Conference on Computer-Supported Cooperative Work and Social Computing (CSCW'20)*

## Demos, Notes, and Posters

- Nayak, A., Vashistha, A., Gautam, A. (2025). The Birth of Synthetic Agents: From 'World as Language' to 'Agency as Language' In *Symposium on Chat Token Vector: Questioning Models of Language and Neo-Structuralism in AI*.
- Emejulu, A., Pei, L., **Gautam, A.** (2022). Critical perspectives on ABCD: a conversation with Akwugo Emejulu. *Interactions*, 29(5)
- Wong-Villacres, M., Erete, S., **Gautam, A.**, Ismail, A., Kumar, N., Pei, L., ... Motti, V. G. (2022). Elevating strengths and capacities: the different shades of assets-based design in HCI. *Interactions*, 29(5)
- **Gautam, A.**, & Tatar, D. (2020). Society is the System: Beyond Individual Empowerment to Structural Negotiations. In *Computing Professionals for Social Responsibility: The Past, Present and Future Values of Participatory Design*
- **Gautam, A.** (2020). Usable, Acceptable, Appropriable: Towards Practicable Privacy. In *CHI 2020 Networked Privacy Workshop*
- **Gautam, A.**, Stewart, M., Shrestha, C., Tibau, J., Harrison, S., & Tatar, D. (2019). Designing to Reflect Our Better Nature. In *Design of Interactive Systems (DIS'19)*
- **Gautam, A.** (2018). Hearing and Crafting: Co-Designing with a Vulnerable Population in Nepal. In *International Research Conference (IRC'18)*
- Stewart, M., Joshi, S., **Gautam, A.**, & Tatar, D. (2017). Thought-swapping for in-class discussions. In *Proceedings of the 9th Annual Conference on Higher Education Pedagogy (CHEP'17)*
- **Gautam, A.** (2016). Wearing a Granular Production-Focused Lens. In *PSI Workshop: What should come next for HCI?*

## INVITED TALKS & PRESENTATIONS

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- CIS Seminar on Participatory Design with Community at *University of Delaware* 09/2025
- Symposium on Examining Critical Sociotechnical Challenges in Information Science at *Rutgers* 04/2025
- Reconfiguring for Impact: Reflections on Community-Based Design at *University of Toronto* 03/2025
- Rethinking AI for Most of the World Panel at *University of Toronto, Scarborough* 03/2025
- Digital Inclusion for Returning Citizens and Others in the Margin at *Greater Pittsburgh Digital Inclusion Alliance* 03/2024
- Community-Based Technology For Social Good at *Pitt's Community Engagement Center* 02/2024
- Discourse in Community-Based Design. Year of Discourse and Dialogue at *Pitt* 02/2024
- Structures of Injustices. *Participatory Design Conference Panel* 08/2022
- Community-Engaged Computing for Social Good. *Toyota Research Institute* 05/2022
- Designing Socio-Technical Systems for a Vulnerable Population. *CHI Awards* 05/2022
- Rethinking Reintegration. *USAID Asia Counter Trafficking In Persons Evidence Summit* 11/2020
- Communication and Communities. *HCI4D @ Third Space at University of Toronto* 07/2020
- Social Justice. Sustainability, *Social Justice and Critical Computing Virtual Forum* 05/2020
- Gender and Design. *fempower.tech's CHIiversity* 04/2020
- Information and Power in Labor Migration. *Centre for Social Change, Nepal* 01/2019

## GRANTS

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- Henry L. Hillman Family Foundation Grant: Digital Survival Skills for Southwestern PA 2025
  - Amount: \$150,000
  - Principal Investigator: **Beth Schwenk**
  - Role: Co-PI
- Pitt Cyber Accelerator Grant: Examining Privacy Practices and Adaptations in Health Research Following the 2023 NIH Data Sharing Policy 2025
  - Amount: \$5,000
  - Principal Investigator: **Aakash Gautam**
  - Co-PI: Amin Rahimian
- NSF BPC Subaward: Collaborative Research: BPC-A: Socially Responsible Computing: Promoting Latinx student retention via community engagement in early CS courses 2024
  - Amount: \$29,950
  - Principal Investigator: **Aakash Gautam**
- Pitt Momentum Fund: Enhancing Reentry Support Programs through Community-Based Participatory Action Research 2024
  - Amount: \$20,000
  - Principal Investigator: **Aakash Gautam**
- Google Award for Inclusion Research: Community-Driven Socio-Technical Approach to Language Preservation and Promotion in Nepal 2022
  - Amount: \$60,000 (unrestricted gift)
  - Principal Investigator: **Aakash Gautam**

- NSF Award # 2216575: Socially Responsible Computing: Promoting Latinx student retention via community engagement in early CS courses 2022
  - Amount: \$293,376
  - Principal Investigator: Ilmi Yoon
  - Co-Investigators: **Aakash Gautam**, Anagha Kulkarni
  - Housed at San Francisco State University
- Google exploreCSR 2021
  - Amount: \$38,500
  - Principal Investigator: Pooyan Fazli
  - Co-Investigators: **Aakash Gautam**, Daniel Huang, Hui Yang
  - Housed at San Francisco State University
- NSF Award # 2030581: Scholarships To Improve Undergraduate Students' Academic Achievement, Retention, and Career Success in Computer Science and Artificial Intelligence 2021
  - Amount: \$999,987
  - Principal Investigator: Anagha Kulkarni
  - Co-Investigators: **Aakash Gautam**, Ilmi Yoon, Shasta Ihorn
  - Housed at San Francisco State University

## AWARDS

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- Spotlight, NeurIPS 2024
- Special Recognition for Outstanding Reviews, CHI 2022, 2023, 2024
- Special Recognition for Outstanding Review, DIS 2024
- Google Award for Inclusion Research Award 2022
- SIGCHI Outstanding Dissertation Award 2022
- Special Recognition for Outstanding Reviews, CSCW 2019, 2021, 2022
- Virginia Tech Graduate School Diversity Scholar 2020
- CS Graduate Teaching Assistant of the Year 2020
- Invited Member of Doctoral Consortium at PDC 2020
- Best Paper Award at ASEE Southeastern Section Conference 2019
- Invited Member of Doctoral Consortium at ICTD 2019
- SIGCHI and ICTD Student Travel Grant 2017, 2019
- Conference Travel Grants from VT CS Department and CHCI 2017, 2018, 2019
- Recognition for Contribution to Diversity and Inclusion, CSCW 2018
- St. Gallen Symposium Leaders of Tomorrow Award 2016

## STUDENTS SUPERVISED AND MENTORED

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### Ph.D. Advises:

- Ahmad Diab | Computer Science; Co-advise with Yuru Lin | 4th year
- Alejandro Cuiba | Computer Science | 3rd year
- Modhumonty Das | Computer Science | 3rd year
- Abdulaziz Alotaibi | Computer Science | 3rd year
- Aditya Nayak | LIS | 2nd year

### Ph.D. Committee Member:

- Andrew Xu | Computer Science; Chair: Jacob Biehl
- Talha Khan | Computer Science; Chair: Jacob Biehl | Graduated in March 2025

### Masters Thesis Supervised:

- Aidan Smagh | Class of 2027 (M.S. in Computer Science at Pitt)
- Alekhya Gandu | Class of 2023 (M.S. in Computer Science at SFSU) | First job at Pure Storage
- Jessica Sandejo | Class of 2023 (M.S. in Computer Science at SFSU) | First job at SLAC, Stanford
- Khusboo Gandhi | Class of 2023 (M.S. in Computer Science at SFSU) | First job at Yahoo
- Michael Han | Class of 2022 (M.S. in Computer Science at SFSU) | First job at Shipt

## ACADEMIC SERVICE

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- Member, School of Computing and Information's Engaged Scholars Committee: 2024 – Present
- Member, School of Computing and Information's Research Committee: 2024 – Present
- Community Co-Chair at CSCW Conference: 2024
- Hybrid Experience Chair at PDC Conference: 2024
- Member, Hiring Committee for the Director of the Center for African Studies, Pitt: 2024
- Member, SIGCHI's Futuring Committee: 2022 – 2024
- Associate Chair (AC): CHI: 2022 – 2026; CHI Late Breaking Work: 2020 – 2021; CSCW: 2026
- Paper Reviewer: ICLS: 2022; CSCW: 2017 – 2022; CHI: 2019 – 2021; DIS: 2019, 2024; ICTD: 2019 – 2020; AERA: 2017 – 2018; ASEE: 2019