Principal Researcher, Microsoft Research India

MOHIT JAIN

https://mohitjaindr.github.io/ mohja@microsoft.com

PROFESSIONAL EXPERIENCE

INDUSTRY EXPERIENCE

2019-Present Microsoft Research, India

Principal Researcher, Technology and Empowerment (TEM)

2012-2019 IBM Research, India

Senior Research Engineer, Cognitive IoT

2011-2012 Amazon, USA

Software Development Engineer, Digital Videogames

ACADEMIC EXPERIENCE

2015-2019 University of Washington, USA

Graduate Research Assistant, UbiComp Lab

2009-2011 University of Toronto, Canada

Graduate Research Assistant, Digital Graphics Project Lab

INTERNSHIP EXPERIENCE

Summer 2011 HP Labs, India

Research Intern, Mobile and Immersive Experience Lab

Advisor: Dr. Sriganesh Madhvanath

Spring 2011 Microsoft Research, India

Research Intern, Technology for Emerging Markets (TEM) team *Advisor*: Dr. Indrani Medhi, Aishwarya Ratan, Dr. Edward Cutrell

Summer 2010 Microsoft Research, India

Visiting Researcher, Technology for Emerging Markets (TEM) team

Advisor: Dr. Edward Cutrell

Fall 2009 Greenbelt Foundation, Canada

Interface Designer

Summer 2007 University of California, Berkeley and Microsoft Research, India

Software Developer Intern, Technology for Emerging Markets (TEM) team *Advisor*: Dr. Joyojeet Pal, Udai Pawar, Sukumar Anikar, Dr. Kentaro Toyama

EDUCATION

2015-2019 Ph.D., Computer Science & Engineering, University of Washington, USA

GPA: 3.94/4.0

Advisor: Dr. Shwetak Patel (Area: Ubiquitous Computing)

Thesis: Making Chatbots More Transparent and Applicable to New Demographics

2009-2011 Master of Science, Computer Science, University of Toronto, Canada

GPA: 4.0/4.0

Advisor: Dr. Ravin Balakrishnan (Area: Human-Computer Interaction)

Thesis: User Learning and Performance with Bezel Menus

2005-2009 Bachelor of Technology, Information & Communication Technology, Dhirubhai Ambani Institute of ICT (DA-

IICT), India

GPA: 9.61/10 (Bronze Medalist)

HONORS, AWARDS & GRANTS

- 2024 Best Paper of Session (Community Ophthalmology) at AIOC 2024 for CataractBot [C47, A2].
- 2023 Accessibility Award at Springer INTERACT 2023 for the Employed DHH study [C44].
- 2022 **Best Subject Paper** at AIOC 2022 for SmartKC [C38, J5].

Best Paper of Session at AIOC 2022 for SmartKC [C38, J5].

Third place in Hack for Society (Executive Challenge) and third place in Hack 2 Enable (Special Topic Challenge) at **Microsoft Hackathon** for the project: 'Planting the SEEDS: Scalable Educational Experiences with Digital Scaffolding'.

2021 Honorable Mention Award (Top 5%) at ACM CSCW for Infrastructuring Telehealth [J3].

Methods Recognition Award at ACM CSCW for Turn2Earn [J4].

Honorable Mention Award at Microsoft Global Hackathon for WhatsInMyReport project in the Hack Health category.

Project VICT – Computational Thinking for Persons with Visual Impairment [C31, C32, C35] won **The Jury Commendation Certificate** in the 19th FICCI Corporate Social Responsibility Award.

- 2019 IBM Fourth Patent Plateau.
- 2018 IBM **Outstanding Equity Award** (awarded to <0.1% of IBMers).

Honorable Mention Award (Top 5%) at ACM CHI for Seismo [C22].

Aegis Graham Bell Award (Category: Innovation in IoT) for my team's work in Agribusiness.

IBM 'A-level Accomplishment' Award (Category: Customer Offering) for Utility Innovations to Embrace Sustainability and Climate Change.

IBM Third Patent Plateau.

2017 Winner of **DFS Tech Chatbots Challenge** 2017, award of US\$20,000 [J2].

Young Researcher attendee at the Heidelberg Laureate Forum.

IBM 'A Level Accomplishment' Award for Efficient Integration of non-conventional Energy Sources in Electric and Thermal Grids [C18].

IBM Volunteer Award for being part of the IBM Research India Internship team.

IBM Second Patent Plateau.

2016 IBM 'Outstanding Technical Achievement Award' for UrJar [C11, W7].

IBM 'Outstanding Technical Achievement Award' for contributions to User Centric Demand Management [W6, C12, C14].

IBM First Patent Plateau.

2015 IBM 'O Level Accomplishment' Award (Category: Customer Offering) for Smarter Energy Offering.

IBM 'Research Division Award' for Energy Efficiency in Brunei [C12].

IBM 'A Level Accomplishment' Award (Category: Image) for UrJar [C11, W7].

IBM 'A Level Accomplishment' Award (Category: Science) for User-Centric Demand Management [W6, C12, C14].

IBM 'A Level Accomplishment' Award (Category: Accelerated Market Introduction) for Analytics and Applications for Energy and Utility.

Runner-up at Smarter Energy Research Institute (SERI) conference organized by IBM.

University of Washington graduate scholarship.

2014 **Best Paper Award** at BuildSys for Collaborative Energy Conservation [C12].

Runner-up Best Presentation Award at BuildSys for Collaborative Energy Conservation [C12].

IBM 'A Level Accomplishment' Award (Category: Client Success) for Efficient Energy Generation and Consumption in Brunei [C12].

IBM 'A Level Accomplishment' Award (Category: Science) for Technology for Education (IDEAL) Project [C10].

2009 Wolfond Fellowship.

Won MultiPoint Education Award in Microsoft Imagine Cup World Finals, Egypt.

Second runner-up in Microsoft Imagine Cup National Finals (Software Design), India.

Travel scholarship to attend ACM/IEEE ICTD conference.

University of Toronto graduate scholarship (2009-2011).

- Bronze medal for securing 3rd rank in a class of 240 students at DA-IICT.
- 2008 Won TechMarket, a white paper presentation competition, at DA-IICT.
- 2007 Won **IBM INVITE**, a software design competition.

PEER-REVIEWED JOURNAL PUBLICATIONS

2024 J12 Examining the Challenges of Blood Pressure Estimation via Photoplethysmogram.
Suril Mehta, Nipun Kwatra, **Mohit Jain**, Daniel McDuff.

Nature Scientific Reports, 14, article 18318.

J11 DEDector: Smartphone-Based Noninvasive Screening of Dry Eye Disease.

Vaibhav Ganatra, Soumyasis Gun, Pallavi Joshi, Anand Balasubramaniam, Kaushik Murali, Nipun Kwatra, **Mohit Jain**.

IMWUT (PACM on Interactive, Mobile, Wearable and Ubiquitous Technologies) 8, 4 article 190.

J10 Artificial Intelligence in Cataract Surgery: A Systematic Review.

Simon Muller, **Mohit Jain**, Bhuvan Sachdeva, Payal N. Shah, Frank G. Holz, Robert P. Finger, Kaushik Murali, Maximilian W. M. Wintergerst, Thomas Schultz.

TVST (Translational Vision Science & Technology, ARVO Journal) 13, 4 article 20.

J9 SignIt! An Android game for sign bilingual play that collects labelled sign language data.

Roshni Poddar, Pradyumna YM, Divya Prabha Jayakumar, Tarini Naik, Punyat Tripathi, Nabeel TP, Hemanth Reddy Yeddula, Pratyush Kumar, Mohit Jain, Manohar Swaminathan.

ITU Journal on Future and Evolving Technologies, 4, 4.

J8 "Is it even giving the correct reading or not?": How Trust and Relationships Mediate Blood Pressure Management in India.

Nimisha Karnatak, Brooke Loughrin, Tiffany Amy Kuo, Odeline Mateu-Silvernail, Indrani Medhi Thies, William Thies, **Mohit Jain**.

TOCHI (ACM Transactions on Computer-Human Interaction) 30, 6 article 90.

[Presented at CHI (ACM Conference on Human Factors in Computing Systems) 2024]

J7 Understanding the Technology-Mediated Home Phlebotomy Ecosystem in India Meghna Gupta*, Nimisha Karnatak*, Mohit Jain. [* equal contributors] CSCW (PACM HCI) 8, 1 article 144.

2022 J6 Towards Automating Retinoscopy for Refractive Error Diagnosis.

Aditya Aggarwal, Siddhartha Gairola, Uddeshya Upadhyay, Akshay P. Vasishta, Diwakar Rao, Aditya Goyal, Kaushik Murali, Nipun Kwatra, **Mohit Jain**.

IMWUT (PACM on Interactive, Mobile, Wearable and Ubiquitous Technologies) 6, 3 article 97.

J5 SmartKC: Smartphone-based Corneal Topographer for Keratoconus Detection.

Siddhartha Gairola, Murtuza Bohra, Nadeem Shaheer, Navya Jayaprakash, Pallavi Joshi, Anand Balasubramaniam, Kaushik Murali, Nipun Kwatra, **Mohit Jain**.

IMWUT (PACM on Interactive, Mobile, Wearable and Ubiquitous Technologies) 5, 4, article 155.

J4 Understanding Driver-Passenger Interactions in Vehicular Crowdsensing.

Dhruv Agarwal, Srishti Agarwal, Vidur Singh, Rohita Kochupillai, Rosemary Pierce-Messick, Srinivasan Iyengar, **Mohit Jain**.

CSCW (PACM HCI) 5, 2 article 482.

Methods Recognition Award

J3 Infrastructuring Telehealth in (In)Formal Patient-Doctor Contexts.

Karthik S. Bhat, **Mohit Jain**, Neha Kumar. CSCW (*PACM HCI*) 5, 2, article 323.

Honorable Mention Award (Top 5%)

J2 FarmChat: A Conversational Agent to Answer Farmer Queries.
 Mohit Jain, Pratyush Kumar, Ishita Bhansali, Q. Vera Liao, Khai Truong, Shwetak Patel.
 IMWUT (PACM on Interactive, Mobile, Wearable and Ubiquitous Technologies) 2, 4, article 170.

J1 DigiTouch: Reconfigurable Thumb-to-Finger Interaction for Input and Text Entry for Head-mounted Displays. Eric Whitmire, **Mohit Jain**, Divye Jain, Greg Nelson, Ravi Karkar, Shwetak Patel, Mayank Goel. IMWUT (PACM on Interactive, Mobile, Wearable and Ubiquitous Technologies) 1, 3, article 113.

PEER-REVIEWED CONFERENCE PUBLICATIONS

2025 C51 ASHABot: An LLM-Powered Chatbot to Support the Informational Needs of Community Health Workers.
Pragnya Ramjee, Mehak Chhokar, Bhuvan Sachdeva, Mahendra Meena, Hamid Abdullah, Aditya Vashistha,
Ruchit Nagar, **Mohit Jain**.

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

C50 SmartKC++: Improving Performance of Smartphone-Based Corneal Topographers.

Vaibhav Ganatra, Siddhartha Gairola, Pallavi Joshi, Anand Balasubramaniam, Kaushik Murali, Arivunithi Varadharajan, Bellamkonda Mallikarjuna, Nipun Kwatra, **Mohit Jain**.

WACV (IEEE/CVF Winter Conference on Applications of Computer Vision).

2024 C49 Beyond the Waiting Room: Patient's Perspectives on the Conversational Nuances of Pre-Consultation Chatbots.

Brenna Li, Ofek Gross, Noah Crampton, Mamta Kapoor, Saba Tauseef, **Mohit Jain**, Khai N. Truong, Alex Mariakakis.

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

C48 Breaking the News Barrier: Towards Understanding News Consumption Practices among BVI Individuals in India.

Peya Mowar, Meghna Gupta, Mohit Jain.

ASSETS (ACM SIGACCESS Conference on Computers and Accessibility).

AIOC (Annual Conference of All India Ophthalmological Society): Oral.

C47 CataractBot: ChatGPT powered generative AI chatbot to support patients undergoing cataract surgery.

lacksquare

Kaushik Murali, **Mohit Jain**, Bhuvan Sachdeva, Pragnya Ramjee, Geeta Fulari.

Best Paper of Session Award

C46 Examining Factors Influencing Technology Integration in Indian Classrooms: A Teachers' Perspective.
Tarini Naik, Meena Elapulli Shankaranarayanan, Manohar Swaminathan, Kalika Bali, **Mohit Jain**.
COMPASS (ACM SIGCAS Conference on Computing and Sustainable Societies).
[Invited to also present in "Out-of-India track" at the IndiaHCI 2024 conference]

2023 C45 Jod: Examining the Design and Implementation of a Videoconferencing Platform for Mixed Hearing Groups.

Anant Mittal, Meghna Gupta, Roshni Poddar, Tarini Naik, SeethaLakshmi Kuppuraj, James Fogarty, Pratyush Kumar, Mohit Jain.

ASSETS (ACM SIGACCESS Conference on Computers and Accessibility).

C44 Challenges faced by the Employed Indian DHH Community.

Advaith Sridhar, Roshni Poddar, **Mohit Jain**, Pratyush Kumar.

INTERACT (Springer IFIP TC13 International Conference on Human-Computer Interaction).

Accessibility Award

C43 Towards Intermediated Workflows for Hybrid Telemedicine.

Karthik S. Bhat, Neha Kumar, Karthik Shamanna, Nipun Kwatra, Mohit Jain.

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

C42 Constraints and Workarounds to Support Clinical Consultations in Synchronous Text-based Platforms.

Brenna Li, Tetyana Skoropad, Puneet Seth, **Mohit Jain**, Khai Truong, Alex Mariakakis.

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

C41 Understanding Journalists' Workflows in News Curation.
Shubham Atreja, Shruthi Srinath, Mohit Jain, Joyojeet Pal.

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

2022 C40 From the Margins to the Centre: Defining New Mission and Vision for HCl Research in South Asia.

Pranjal Jain, Samia Ibtasam, Sumita Sharma, Nilavra Bhattacharya, Anupriya Tuli, Dilrukshi Gamage, Dhruv Jain, Rucha Tulaskar, Priyank Chandra, Lubna Razaq, Rahat Jahangir Rony, Deepak Ranjan Padhi, **Mohit Jain**, Suleman Shahid, Nova Ahmed, Devanuj Kanta Balkrishan, Pushpendra Singh.

CHI EA (Extended Abstracts of the ACM CHI Conference on Human Factors in Computing Systems).

C39 *Keratoconus Classifier for Smartphone-based Corneal Topographer.*Siddhartha Gairola, Pallavi Joshi, Anand Balasubramaniam, Kaushik Murali, Nipun Kwatra, **Mohit Jain**.
EMBC (*IEEE International Engineering in Medicine and Biology Conference*).

C38 Learning Curve in the Construct of Smartphone-based Keratoscope Prototype for KCN Screening.



Pallavi Joshi, Anand Balasubramaniam, Kaushik Murali, Siddhartha Gairola. (Note: A paper can have up to 4 authors in total).

AIOC (Annual Conference of All India Ophthalmological Society).

Best Paper of Session Award Best Subject Paper Award

C37 Language Patterns and Behaviour of the Peer Supporters in Multilingual Healthcare Conversational Forums. Ishani Mondal, Kalika Bali, **Mohit Jain**, Monojit Choudhury, Jacki O'Neill, Millicent Ochieng, Kagnoya Awori, Keshet Ronen.

LREC (ELRA Language Resources and Evaluation Conference).

- C36 Global Readiness of Language Technology for Healthcare: What Would It Take to Combat the Next Pandemic? Ishani Mondal, Kabir Ahuja, **Mohit Jain**, Jacki O'Neill, Kalika Bali, Monojit Choudhury. COLING (International Conference on Computational Linguistics).
- 2021 C35 VStroll: An Audio-based Virtual Exploration to Encourage Walking among People with Vision Impairments.

 Gesu India, Mohit Jain, Pallav Karya, Nirmalendu Diwakar, Manohar Swaminathan.

 ASSETS (ACM SIGACCESS Conference on Computers and Accessibility).
 - C34 Understanding Motivations and Barriers to Exercise Among People with Blindness in India.

 Gesu India, **Mohit Jain**, Manohar Swaminathan.

 INTERACT (Springer IFIP TC13 International Conference on Human-Computer Interaction).
 - C33 A Linguistic Annotation Framework to Study Interactions in Multilingual Healthcare Conversational Forums. Ishani Mondal, Kalika Bali, **Mohit Jain**, Monojit Choudhury, Ashish Sharma, Evans Gitau, Jacki O' Neill, Kagonya Awori, Sarah Gitau.

 LAW, EMNLP (Linguistic Annotation Workshop at Empirical Methods in Natural Language Processing).
 - C32 Smartphone Usage by Expert Blind Users.

Mohit Jain, Nirmalendu Diwakar, Manohar Swaminathan.

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

C31 Teachers' Perceptions around Digital Games for Children in Low-resource Schools for the Blind.
Gesu India, Vidhya Y, Aishwarya O, Nirmalendu Diwakar, **Mohit Jain**, Aditya Vashistha, Manohar Swaminathan.

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

C30 RespireNet: A Deep Neural Network for Accurately Detecting Abnormal Lung Sounds in Limited Data Setting.
Siddhartha Gairola, Francis Tom, Nipun Kwatra, **Mohit Jain**.
EMBC (IEEE International Engineering in Medicine and Biology Conference).

C29 Height Estimation of Children under Five Years Using Depth Images.

Anusua Trivedi, **Mohit Jain**, Nikhil Kumar Gupta, Markus Hinsche, Prashant Singh, Markus Matiaschek, Tristan Behrens, Mirco Militeri, Cameron Birge, Shivangi Kaushik, Archisman Mohapatra, Rita Chatterjee, Rahul Dodhia, Juan Lavista Ferres

EMBC (IEEE International Engineering in Medicine and Biology Conference).

2020 C28 Gaze-based Screening of Autistic Traits for Adolescents and Young Adults using Prosaic Videos.

Karan Ahuja, Abhishek Bose, **Mohit Jain**, Kuntal Dey, Anil Joshi, Krishnaveni Achary, Blessin Varkey, Chris Harrison, Mayank Goel.

COMPASS (ACM SIGCAS Conference on Computing and Sustainable Societies).

2019 C27 Automatic Generation and Evaluation of Usable and Secure Audio reCAPTCHA.

Mohit Jain, Rohun Tripathi, Ishita Bhansali, Pratyush Kumar.

ASSETS (ACM SIGACCESS International Conference on Computers and Accessibility).

C26 Adversarial Adaptation of Scene Graph Models for Understanding Civic Issues.

Shanu Kumar, Shubham Atreja, Anjali Singh, Mohit Jain.

WWW (International World Wide Web Conference).

C25 Resilient Chatbots: Repair Strategy Preferences for Conversational Breakdowns.

Zahra Ashktorab*, **Mohit Jain***, Q. Vera Liao*, Justin D. Weisz. [* equal contributors]

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

C24 BigBlueBot: Teaching Strategies for Successful Human-Agent Interactions.

Justin D. Weisz, Mohit Jain, Narendra Nath Joshi, James Johnson, Ingrid Lange.

IUI (ACM International Conference on Intelligent User Interfaces).

C23 Automatic Generation of Leveled Visual Assessments for Young Learners.

Anjali Singh, Ruhi S. Mittal, Shubham Atreja, Mourvi Sharma, Seema Nagar, Prasenjit Dey, **Mohit Jain**.

EAAI (Educational Advances in Artificial Intelligence).

2018 C22 Seismo: Blood Pressure Monitoring using Built-in Smartphone Accelerometer and Camera.

Edward Jay Wang, Junyi Zhu, **Mohit Jain**, Tien-Jui Lee, Elliot Saba, Lama Nachman, Shwetak Patel.

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

Honorable Mention Award (Top 5%)

C21 Convey: Exploring the Use of a Context View for Chatbots.

Mohit Jain, Ramachandra Kota, Pratyush Kumar, Shwetak Patel.

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

C20 End-To-End Audio Replay Attack Detection Using Deep Convolutional Networks with Attention.

Francis Tom, Mohit Jain, Prasenjit Dey.

INTERSPEECH (Annual Conference of the International Speech Communication Association).

C19 MobiCeil: Cost-Free Indoor Localizer for Office Buildings.

Mohit Jain, Megha Nawhal, Saicharan Duppati, Sampath Dechu.

MobileHCI (ACM Conference on Human-Computer Interaction with Mobile Devices and Services).

C18 Reducing Energy Consumption for Space Heating by Changing Zone Temperature: Pilot Trial in Luleå, Sweden.

Kumar Saurav, Mohit Jain, Sambaran Bandhyopahyay.

eEnergy (ACM International Conference on Future Energy Systems).

C17 Opportunistic Sensing with Mic Arrays on Smart Speakers for Distal Interaction and Exercise Tracking.

Anup Agarwal, Mohit Jain, Pratyush Kumar, Shwetak Patel.

ICASSP (IEEE International Conference on Acoustics, Speech and Signal Processing).

C16 Evaluating and Informing the Design of Chatbots.

Mohit Jain, Pratyush Kumar, Ramachandra Kota, Shwetak Patel.

DIS (ACM Conference on Designing Interactive Systems).

2016 C15 Software-only Occupancy Inference in a Workplace.

Mohit Jain, Vikas Chandan, Ashok Pon Kumar, Vijay Arya, Sridhar R, Babitha Ramesh.

ISGT NA (IEEE Conference on Innovative Smart Grid Technologies NA).

2015 C14 Methodologies for Effective Demand Response Messaging.

Mohit Jain, Vikas Chandan, Marilena Minou, George Thanos, Tri K Wijaya, Achim Lindt, Arne Gylling.

SmartGridComm (IEEE International Conference on Communications, Control, and Computing Technologies for Smart Grid).

C13 Comparing Energy Feedback Techniques for Dormitory Students in India.

Mohit Jain, Deepika Chhabra, Amarjeet Singh.

BuildSys (ACM International Conference on Systems for Energy-Efficient Built Environments).

2014 C12 Collaborative Energy Conservation in a Microgrid.



Mohit Jain, Harshad Khadilkar, Neha Sengupta, Zainul Charbiwala, Kushan U Tennakoon, Rodzay bin H.A. Wahab, Liyanage C.D. Silva, Deva P. Seetharam.

BuildSys (ACM International Conference on Systems for Energy-Efficient Built Environments).

Best Paper Award

Runner-Up Best Presentation Award

C11 UrJar: A Lighting Solution using Discarded Laptop Batteries.

Vikas Chandan, **Mohit Jain**, Harshad Khadilkar, Zainul Charbiwala, Anupam Jain, Sunil Ghai, Rajesh Kunnath, Deva P. Seetharam.

DEV (ACM Symposium on Computing for Development).

C10 EduPal: Enabling Blended Learning in Resource Constrained Environments.

Malolan Chetlur, Ashay Tamhane, Vinay Kumar Reddy, Bikram Sengupta, **Mohit Jain**, Pongsakorn Sukjunnimit, Ramrao Wagh.

DEV (ACM Symposium on Computing for Development).

C9 Energy Usage Attitudes of Urban India.

Mohit Jain, Deepika Chhabra, Jen Mankoff, Amarjeet Singh.

ICT4S (International Conference on ICT for Sustainability).

2013 C8 "We are not in the loop": Resource Wastage and Conservation Attitude of Employees in Indian Workplace.

Mohit Jain, Ankit Agrawal, Sunil K. Ghai, Khai Truong, Deva P. Seetharam.

UbiComp (ACM International Joint Conference on Pervasive and Ubiquitous Computing).

C7 Comparison of Phone-based Distal Pointing Techniques for Point-Select Tasks.

Mohit Jain, Andy Cockburn, Sriganesh Madhvanath.

INTERACT (Springer IFIP TC13 International Conference on Human-Computer Interaction).

C6 Evaluating the Effect of Phrase Set in Hindi Text Entry.

Mohit Jain, Khushboo Tekchandani, Khai Truong.

INTERACT (Springer IFIP TC13 International Conference on Human-Computer Interaction).

C5 Deep Conservation in Urban India and its Implications for the Design of Conservation Technologies.

Yedendra Shrinivasan, **Mohit Jain**, Deva P. Seetharam, Abhishek Choudhary, Elaine M. Huang, Tawanna Dillahunt, Jennifer Mankoff.

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

2012 C4 Combating Rural Child Malnutrition through Inexpensive Mobile Phones.

Indrani Medhi, **Mohit Jain**, Anuj Tewari, Mohini Bhavsar, Michael Matheke-Fischer, Edward Cutrell.

NordiCHI (ACM Nordic Conference on Human-Computer Interaction).

C3 User Learning and Performance with Bezel Menus.

Mohit Jain, Ravin Balakrishnan.

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

2011 C2 Exploring Display Techniques for Mobile Collaborative Learning in Developing Regions.

Mohit Jain, Jeremy Birnholtz, Edward Cutrell, Ravin Balakrishnan.

MobileHCI (ACM Conference on Human-Computer Interaction with Mobile Devices and Services).

2010 C1 DISHA: Multiple Mice in Narrative Content-based Computer Aided Learning for Children.

Aakar Gupta, Praveen Shekhar, Navkar Samdaria, Mohit Jain, Joyojeet Pal.

IDID (IFIP TC13 SIG on Interaction Design for International Development).

arXiv PAPERS (NOT PEER-REVIEWED)

2025 A4 HEALTH-PARIKSHA: Assessing RAG Models for Health Chatbots in Real-World Multilingual Settings.
Varun Gumma, Anandhita Raghunath, **Mohit Jain**, Sunayana Sitaram.
arXiv:2410.13671

A3 Learnings from a Large-Scale Deployment of an LLM-Powered Expert-in-the-Loop Healthcare Chatbot.

Bhuvan Sachdeva, Pragnya Ramjee, Geeta Fulari, Kaushik Murali, **Mohit Jain**.

arXiv:2409.10354

CataractBot: An LLM-Powered Expert-in-the-Loop Chatbot for Cataract Patients.

Pragnya Ramjee, Bhuvan Sachdeva, Satvik Golechha, Shreyas Kulkarni, Geeta Fulari, Kaushik Murali, Mohit Jain.

arXiv:2402.04620

2023 PwR: Exploring the Role of Representations in Conversational Programming.

> Pradyumna YM, Vinod Ganesan, Dinesh Kumar Arumugam, Meghna Gupta, Nischith Shadagopan, Tanay Dixit, Sameer Segal, Pratyush Kumar, Mohit Jain, Sriram Rajamani.

arXiv:2309.09495

[Part of Computational Cybersecurity in Compromised Environments (C3E) Reading list: https://sosvo.org/group/c3e/reading2024]

PEER-REVIEWED POSTERS, DEMOS & WORKSHOPS

2025 Evaluation of an Al-powered Oncology Chatbot for Head and Neck Cancer Patients Undergoing Curative W11 Intent Radiotherapy.

> Salma Shams C, Shirley Lewis, Mohit Jain, Pragnya Ramjee, Bhuvan Sachdeva, Rahul Sharma, Umesh Velu, Anshul Singh, Ankita Mehta, Jayashree NP.

NHS and RCR Global AI Conference: Abstract.

2024 W10 Human-Al Interaction for Work.

Dagstuhl Seminar Report 23452.

2023 W9 SignIt! An Android Game for Sign Bilingual Play.

> Roshni Poddar, Pradyumna YM, Divya Prabha Jayakumar, Tarini Naik, Punyat Tripathi, Nabeel TP, Hemanth Reddy Yeddula, Pratyush Kumar, **Mohit Jain**, Manohar Swaminathan.

ASSETS (ACM SIGACCESS Conference on Computers and Accessibility): Poster.

2018 W8 BigBlueBot: A Demonstration of How to Detect Egregious Conversations with Chatbots.

Casey Dugan, Justin D Weisz, Narendra Nath Joshi, Ingrid Lange, James Johnson, Mohit Jain, Werner Geyer.

NeurIPS (Conference on Neural Information Processing Systems): Demo.

2015 W7 UrJar: A device to address energy poverty using e-waste.

> Vikas Chandan, Mohit Jain, Harshad Khadilkar, Zainul Charbiwala, Anupam Jain, Sunil Ghai, Rajesh Kunnath, Deva P. Seetharam.

eEnergy (ACM International Conference on Future Energy Systems): Demo.

2014 Evaluating Demand Response Programs: Getting the Key Performance Indicators Right. W6

Marilena Minou, George Thanos, Matteo Vasirani, Tanuja Ganu, Mohit Jain, Arne Gylling.

eEnergy (ACM International Conference on Future Energy Systems): International Workshop on Demand Response.

2013 W5 Replicating Residential Sustainability Study in Urban India.

Mohit Jain, M., Yedendra Shrinivasan, Tawanna Dillahunt.

CHI (ACM Conference on Human Factors in Computing Systems): RepliCHI Workshop.

2012 W4 The Fate of a Digital Slate: Unexpected Issues with Deployment in Rural India.

Indrani Medhi, Anuj Tewari, Mohit Jain, Edward Cutrell.

UXMag (User Experience Magazine), 11, 2.

2009 Approaches to Formal Verification of Security Protocols. W3

Suvansh Lal, Mohit Jain, Vikrant Chaplot.

IMY-CRSI National Workshop on Cryptology.

DISHA: DISease and Health Awareness for Children on Multiple Input Devices.

Mohit Jain, Aakar Gupta, Navkar Samdaria, Praveen Shekhar, Joyojeet Pal.

ICTD (IEEE/ACM International Conference on Information and Communication Technologies and Development): Poster.

2008 From Pilot to Practice: Creating Multiple-Input Multimedia Content for Real-World Deployment. Joyojeet Pal, Udai Pawar, Apurva Joshi, Mohit Jain, Sai Gopal Thota, Sai Teja, Sukumar Anikar.

IUI (ACM International Conference on Intelligent User Interfaces): International Workshop on Intelligent User Interfaces for Developing Regions (IUI4DR).

PATENTS

- 2019 P19 P201904537US01. System and Method to Approximate Farm Level Yield Using Marketplace Arrival Data.

 Smitkumar N Marvaniya, **Mohit Jain**, Sushain Pandit, Wesley Richards, Dean Daskalantonakis, Jagabondhu Hazra.
 - P18 US20210048938A1. Visual Hierarchy Design Governed User Interface Modification via Augmented Reality. Willie Scott, Charu D. Pandhi, **Mohit Jain**, Kuntal Dey.
 - P17 US2020372569A1. System and Method for Chatbot Conversation Federation using Real-Time Auctioning. Kuntal Dey, **Mohit Jain**, Kaushik Lahiri, Sarbajit K. Rakshit.
- 2018 P16 US10782777B2. Real-Time Alteration of Standard Video and Immersive Video for Virtual Reality.

 Mohit Jain, Kuntal Dey, Willie Scott, Charu D. Pandhi.

 GRANTED
 - P15 US20200273080A1. *Product Usage Identification and Recommendation Provision.*Sampath Dechu, **Mohit Jain**, Amrita Saha.
 - P14 US20200114206A1. *Exercise Monitoring and Coaching using Audio-only Devices*. **Mohit Jain**, Anup Agarwal, Pratyush Kumar.
 - P13 US10928917B2. Multiple User Interaction with Audio Devices using Speech and Gestures.

 Mohit Jain, Anup Agarwal, Pratyush Kumar.

 GRANTED
- 2017 P12 US10614815B2. Conversational Challenge-Response System for Enhanced Security in Voice Only Devices. **Mohit Jain**, Pratyush Kumar.

GRANTED

P11 US10608965B2. Augmented Conversational Agent.

Kuntal Dey, Mohit Jain, Pratyush Kumar.

GRANTED

P10 US10664338B2. System and Method for Root Cause Analysis in Large Scale Data Curation Flows using Provenance.

Hima P. Karnam, Manish Kesarwani, Salil Joshi, **Mohit Jain**, Sameep Mehta.

GRANTED

- P9 US20190163807A1. Feature Vector Profile Generation for Interviews.

 Mohit Jain, Ashok Pon Kumar, Pratyush Kumar, Ramachandra Kota.
- P8 US20180295071A1. *Adaptive Communications Display Window.* **Mohit Jain**, Pratyush Kumar, Ramachandra Kota.
- P7 US10810647B2. *Hybrid Virtual and Physical Jewelry Shopping Experience*. Ashok Pon Kumar, Pratyush Kumar, Anshul B. Shah, **Mohit Jain**, Megha Nawhal, Gyanendra Sharma, Amith Singhee.

GRANTED

- 2016 P6 UW48021.01US1. Smartphone Based Blood Pressure Measurement using Cameras and Microphone. Edward Wang, **Mohit Jain**, Shwetak Patel.
 - P5 US20170364229A1. *Display Interaction based upon a Distance of Input.* **Mohit Jain**, Ashok Pon Kumar.

GRANTED

P4 US10598708B2. Identifying and Prioritizing Errors in Connectivity Models of Distribution Networks for Efficient Field Inspections.

Ramachandra Kota, Sambaran Bandyopadhyay, Rajendu Mitra, **Mohit Jain**, Vijay Arya.

GRANTED

2015 P3 US9980099B2. *Indoor Location Detection using Ceiling Patterns*.

Mohit Jain, Megha Nawhal, Saicharan Duppati, Sampath Dechu.

GRANTED

P2 US10379639B2. Single-hand, Full-screen Interaction on a Mobile Device.

Mohit Jain, Ashok Pon Kumar, Zainul M. Charbiwala.

GRANTED

2013 P1 WO2013157013. Selection of User Interface Elements of a Graphical User Interface.

Mohit Jain, Sriganesh Madhvanath, Vimal Sharma.

INVITED TALKS

2025 T31 DILBot: Doctor-in-the-Loop Bot

MSR India TAB 2025

T30 Low-cost diagnostics and LLMs in Healthcare

Generative AI: Techniques, Tools, and Applications, NIT Delhi (Invited Speaker)

2024 T29 SmartKC: Past, Present, Future

MSR India

T28 Low-cost diagnostics and Doctor-in-the-Loop Bot

A Collaborative Indo-US Workshop 2024, Harnessing AI for Healthcare Transformation, IIT Hyderabad

T27 Expert-in-the-Loop Chatbots

Pfizer

2023 T26 Low-Cost Diagnostics (focusing on SmartKC)

JBNSTS (Jagadis Bose National Science Talent Search) Talk

T25 Low-cost diagnostics and LLMs in Healthcare

MEDFuse Event, IIT Gandhinagar

T24 Myths and Facts about ChatGPT – Looking into the Future

VitreoRetinal Society of India (VRSI) webinar (AI & Chatbots Impacting Future)

T23 Al and Global Development

Keynote at ACM CHI workshop (Advancing HCI Research and Education within and across South Asia)

T22 Evolution of SmartKC

Keynote at AIOC (Annual Conference of All India Ophthalmological Society) [by Dr. Pallavi Joshi]

T21 Programming by Conversation

People+AI event by Ekstep

2022 T20 Low-Cost Diagnostics (focusing on SmartKC)

NamasteHCI, IIT Bombay

T19 Low-Cost Diagnostics (focusing on SmartKC)

FOSCAL - UNAB and Autonomous University of Bucaramanga, Colombia

2021 T18 FarmChat: A Conversational Agent to Answer Farmer Queries

18th International Conference on Natural Language Processing, ICON 2021 (Invited Speaker)

T17 Smartphone-based Technological Solutions for the Global South

IIT Gandhinagar (Sabarmati Seminar Series)

T16 Smartphone-based Diagnostic Solutions

IIT Kanpur (Students Research Convention)

T15 Low-Cost Smartphone-based Diagnostic Solutions

IIT Jammu (AI in healthcare workshop)

T14	Teachers' Perceptions around Digital Games for Children in Low-resource Schools for the Blind IndiaHCI Best of CHI 2021 track (presented by Gesu India)
2020 T13	FarmChat: A Conversational Agent to Answer Farmer Queries IndiaHCl Out of India track
2019 T13	Smartphone-based Technological Solutions for the (Mobile) Developing World SIGCHI Summer School on Expanding the Horizons of Human-Centered AI
T12	Smartphone-based Technological Solutions for the (Mobile) Developing World IIIT-Delhi
T11	Smartphone-based Technological Solutions for the (Mobile) Developing World Microsoft Research India
T10	Technological Solutions for Societal Good Microsoft – AI for Good
TS	Extending Interactivity, Accessibility and Security of Conversational Systems FX Palo Alto Laboratory (FXPAL)
2018 T8	Building Empathy with Chatbots IBM AI Systems Day
2017 T7	Build a Chatbot in 10-minutes ad:tech
2016 T6	Cognitive Shopping using Watson Conversation Services IBM Digital Leaders Connect
T5	Cognitive Shopping using Watson Conversation Services IBM Cloud Innovation Forum
2013 T4	Persuade to Conserve École Polytechnique Fédérale de Lausanne (EPFL), Switzerland
ТЗ	Persuade to Conserve IBM Zurich Research Lab
T2	Insights into Paper-based Record Management System Microsoft Research India
2012 T1	Energy Efficiency and Conservation IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS)

TEACHING ASSISTANT EXPERIENCE

Spring 2016	CSE 414: Introduction to Data Management Instructor: Dr. Dan Weld, University of Washington
Fall 2015	CSE 590P: Advanced Topics in Ubiquitous Computing <i>Instructor: Dr. Mayank Goel,</i> University of Washington
Fall 2010	CSC 428/CSC 2514: Human Computer Interaction Instructor: Dr. Khai Truong, University of Toronto
Spring 2010	CSC 343: Introduction to Databases Instructor: Dr. Diane Horton, University of Toronto
Fall 2009	CSC 369: Operating Systems Instructor: Dr. Karen Reid, University of Toronto
Spring 2009	IT 215: Systems Software Instructor: Dr. Anish Mathuria, DA-IICT

Instructor: Dr. Ashok Amin, DA-IICT

VOLUNTARY ACTIVITIES

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2025	IUI ACM	International	Conference i	on Intelligent	User Interfaces

2024 CHI, ACM Conference on Human Factors in Computing Systems (Health track)

IUI, ACM International Conference on Intelligent User Interfaces

2023 IUI, ACM International Conference on Intelligent User Interfaces

IndiaHCI

2022 IUI, ACM International Conference on Intelligent User Interfaces

ICTD, International Conference on Information and Communication Technologies and Development

CUI, Conference on Conversational User Interfaces

2021 CHI, ACM Conference on Human Factors in Computing Systems (Health track)

IUI, ACM International Conference on Intelligent User Interfaces

CUI, Conference on Conversational User Interfaces

IndiaHCI, Indian Conference Series on HCI Design and Research

2020 CHI, ACM Conference on Human Factors in Computing Systems (Specific Application Areas track)

IUI, ACM International Conference on Intelligent User Interfaces

ICTD, International Conference on Information and Communication Technologies and Development

COMPASS, ACM SIGCAS Conference on Computing and Sustainable Societies (Energy, IOT and Smart Cities track)

2019 IUI, ACM International Conference on Intelligent User Interfaces

WORKSHOP ORGANIZER

2025 Al for Healthcare.

TAB 2025, Microsoft

2022 India's Emerging Digital Health Ecosystem.

Project Green Workshop, Microsoft

2021 From the Margins to the Centre: Defining New Mission and Vision for HCI Researchers in South Asia. CHI,

ACM Conference on Human Factors in Computing Systems

Link: https://hci4south.asia/chi21-workshop/

CHAIR

2024 Paper Co-chair, CHIWORK, Annual Meeting on Human-Computer Interaction for Work

2021 Short Paper Co-chair, IndiaHCI, Indian Conference Series on HCI Design and Research

2014 **Publicity Chair**, UbiComp, ACM International Joint Conference on Pervasive and Ubiquitous Computing

Publicity Chair, ISWC, International Symposium on Wearable Computers

2014

REVIEWER

2011-2025 CHI, ACM Conference on Human Factors in Computing Systems

2013-2023 IMWUT, PACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (previously UbiComp)

2015, 19-25 IUI, ACM International Conference on Intelligent User Interfaces

2012, 19-21 DIS, ACM Conference on Designing Interactive Systems

2022 IJHCI, International Journal of Human-Computer Interaction

2021, 2023 TOCHI, ACM Transactions on Computer-Human Interaction

2021 TSC, ACM Transactions on Social Computing

2021 TACCESS, ACM Transactions on Accessible Computing

2021 CUI, Conference on Conversational User Interfaces

2021 COMSNETS, Conference on COMmunication Systems and NETworkS

- 2019 UIST, ACM User Interface Software and Technology
- 2018 IDC, Interaction Design & Children
- 2018 ISS, ACM Interactive Surfaces and Spaces
- 2015 JETR, Journal of Engineering and Technology Research
- 2014 CSCW, ACM Conference on Computer-Supported Cooperative Work and Social Computing
- 2011-2012 MobileHCI, ACM Conference on Human-Computer Interaction with Mobile Devices and Services
 - 2012 APCHI, Asia Pacific Conference on Computer Human Interaction

STUDENT VOLUNTEER

2010 CHI, ACM Conference on Human Factors in Computing Systems

SERVICE at IBM and Microsoft

- 2022-24 Member of the DIB (Diversity, Inclusion and Belonging) Committee, Microsoft Research India.
- 2021-24 Member of the FTE Hiring Committee, Microsoft Research India.
- 2020-2021 Lab Sabha Czar, Microsoft Research India.
 - 2019 External Recognition Lead, IBM Research India.
- 2018-2019 Patent Reviewer and Evaluator, IBM Global.
- 2018-2019 HCI PIC (Professional Interest Communities) Chair, IBM Research India.
- 2016-2018 Internship Coordinator, IBM Research India.
- 2012-2019 Volunteered at IBM demo booths in conferences (CHI 2018, COMSNETS 2018, ANTS 2012, etc.)

MISCELLANEOUS

- 2021-22 External Expert from Industry at the Departmental Board of Studies, Dept. of CSE, NIT Delhi.
- 2013-2014 Teaching children how to use computers in rural Bangalore Government schools.
- 2012-2013 Teaching English to children in rural Bangalore Government schools.

SELECTED MEDIA

CataractBot The Hindu Business Line. Bot in white coat. Keep your questions coming, dear patient. 7 Oct 2024.

[C47, A2, A3] **Economic Times**. Al diagnosis is just what the doctor ordered. 8 Oct 2024.

The Hindu. The immense potential, and practical use of AI in ophthalmology. 10 Dec 2024.

Agriculture The Hindu. Karnataka tomato growers to get crop, price forecasts from IBM using AI, ML. Feb 2019.

[P19] **Business Standard.** Towards farms of the future: How AI is revolutionising agriculture in India. Mar 2019. **IBM Newsroom**. NSTDA and IBM Research Use AI to Transform Sugarcane Farming in Thailand with Mitr

Phol. Mar 2019.

UrJar ProSieben. Featured on the documentary series Galileo on ProSieben (Channel 7) in Germany. 2015.

[C11, W7] BBC. Old Laptop Batteries could Power Slums, IBM says. Dec, 2014.

MIT Technology Review. Discarded Laptop Batteries Keep the Lights On. Dec 2014.

IEEE Spectrum. Turning E-Waste into Light. Dec 2014.

SlashDot. Using Discarded Laptop Batteries To Power Lights. Dec 2014.

The Register. IBM Research wants laptop batteries to retire and slum it. Dec 2014.

The Economic Times. Old laptop batteries could power slums in India: Study. Dec 2014.

Live Mint. India's digital transformation needs innovation. Mar 2015.

Hindustan Times. Trashed laptop batteries to power homes. Dec 2014.

India Times. Jugaad! Read What These Guys Did With Discarded Batteries. Jan 2015.

NDTV. IBM Researchers Use Dumped Laptop Batteries to Create Battery Packs. Dec 2014.

BGR. Discarded laptop batteries to create an emergency lighting system. Dec 2014.

Newsweek. Old Laptop Batteries Could Bring Power to India's Slums. Dec 2014.

Uber Gizmo. E-Waste Recycled, Delivers Power In Second Life. Dec 2014.

Business Today. Trashed laptop batteries to power homes. Dec 2014.

DISHA Microsoft Blog. Microsoft Announces Imagine Cup 2009 Worldwide Winners. July 2009.

[C1, W2]

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