SHASHANK AHIRE

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SUMMARY

PhD candidate in Computer Science researching on conversational health interventions for desk workers. Experienced in designing wearable health solutions and smart conversational agents to enhance well-being and productivity.

SKILLS

Research:	Identify User Needs and Expectations, Experiment Design, Research Methods, Usability Testing, User-Centered Design, Quantitative and Qualitative Analysis, User Research, Field Studies and Ethnographic Research.
Development:	Prototype Building, Interface Design, Statistical Analysis, NLP, Python, SPSS.
Soft Skills:	Problem Solving, Cross-cultural Collaboration, Communication and Documentation, Storytelling and Presentation to Stakeholders, English (C1) and German (B1).

EDUCATION

PhD in Computer Science, Leibniz University Hannover   *April 2020 - present*
Working Title: Voice Interventions for Health and Well-being of Desk Workers
Supervisor: Prof. Michael Rohs

Masters in Computer Science, Swansea University   *September 2018 - September 2019*
Thesis: Designing a Smart Speaker for Emergent Users: Human-AI Symbiosis.
Supervisor: Prof. Matt Jones

Bachelor of Computer Engineering, Mumbai University   *July 2010 - June 2013*
Project: Media Player for Semi-literate Users in India
Supervisor: Prof. Bharti Joshi

KEY PROJECTS

Developing a System to Enhance Hydration Among Desk Workers
· Designed the H2Office system, integrating a water gauge device and smartwatch app to improve hydration among desk workers.
· Achieved a 61% increase in water intake among desk workers, demonstrating significant behavioral improvement.

Voice Interventions for Health and Well-being of Knowledge Workers
· Designed and developed the 'WorkFit' app for smartwatches to tackle sedentary behavior, irregular heart rate, and inconsistent water intake during work.
· Achieved an 80% acceptance rate for breaks recommended by WorkFit, with an average step count of 71 per break.
· Successfully normalized knowledge workers heart rates during stressful situations using the 4-7-8 breathing exercise instructed by WorkFit.

Smart Speaker for Marginalized Users in India: Human Plus AI Response
· Developed a Human-AI smart speaker that responded to 1.9 times more requests compared to the Google Voice Kit.
· Identified criteria for emergent user preferences between human and AI responses.

Text-input in Indian Languages
· Conducted a longitudinal study with 148 students to evaluate Marathi keyboards.
· Analyzed 42,900 sentences, enhancing the Swarachakra keyboard UX.

Inclusive Interface for Visually Challenged Users in India
· Developed and tested a gesture-based Hindi keyboard for visually impaired users, reducing learning time by 50% and boosting typing speed by 1.4x.
· Reduced errors by 30% in A/B testing.

PROFESSIONAL EXPERIENCE

Research Associate   May 2014 - August 2018

Industrial Design Center, IIT Bombay, India   Interaction Design for Indian Needs lab

Research Scientist   December 2019 - present

Leibniz University Hannover   Human - Computer Interaction Lab

AWARDS AND ACHIEVEMENTS

Completed **Promotion Qualifiziert** (PhD to industry transition course) successfully.
Honorable Mention award at CHI 2019 and CHI 2017 conferences.
Best paper award at INTERACT 2017 conference.
Best paper award at IndiaHCI 2015 conference

RELEVANT PUBLICATIONS

1. **H2Office: A Smartwatch and Water-Gauge System for Facilitating Hydration of Knowledge Workers** Shashank Ahire, Abdalrazak Almahayni, Michael Rohs *In Proceedings of the 18th EAI International Conference on Pervasive Computing Technologies for Healthcare (EAI '24)*

2. **WorkFit: Designing Proactive Voice Assistance for the Health and Well-Being of Knowledge Workers** Shashank Ahire, Simon Benjamin, Michael Rohs *In Proceedings of the Conference on Conversational User Interfaces (CUI '24)*

3. **Dual-Mode Interventions: Giving Agency to Knowledge Workers in Proactive Health Interventions** Shashank Ahire, Saied Othman, Michael Rohs *In Proceedings of the Conference on Conversational User Interfaces (CUI '24)*

4. **Ubiquitous Work Assistant: Synchronizing a Stationary and a Wearable Conversational Agent to Assist Knowledge Work** Shashank Ahire, Michael Rohs, Simon Benjamin *In Proceedings of Symposium on Human-Computer Interaction for Work (CHIWORK '22)*

5. **Smart Speaker for Emergent Users: Human Plus AI Response** Shashank Ahire *Proceedings of Indian Conference on Human-Computer Interaction (IndiaHCI '22)*

6. **Performance of Accessible Gesture-Based Indic Keyboard.** Pabba Anu Bharath, Charudatta Jadhav, Shashank Ahire, Anirudha Joshi. (2017) *Human-Computer Interaction (INTERACT 2017).* 🏆 Best Paper Award

7. **Does prediction Really Help in Marathi Text Input?: Empirical Analysis of a Longitudinal Study.** Girish Dalvi, Shashank Ahire, Nagraj Emmadi, Manjiri Joshi, Anirudha Joshi, Sanjay Ghosh, Prasad Ghone, and Narendra Parmar. 2016. (MobileHCI '16).

8. **Interaction Design for Indian Needs.** Shashank Ahire, Girish Dalvi, Manjiri Joshi, and Anirudha Joshi. 2015. *Interactions 22, 5 (August 2015).*

REFERENCES

- **Michael Rohs**, Head, Human-Computer Interaction, Leibniz University Hannover, Germany, michael.rohs@hci.uni-hannover.de