

# Rakesh Patibanda

PhD Candidate, Faculty of Information Technology, Monash University, Melbourne, Australia

+61 452508890 | rakeshpatibanda@gmail.com | rakeshpatibanda.com | [Google Scholar](#)

## About

Experienced Human-Computer Interaction (HCI) researcher and practitioner passionate about exploring emerging technologies, speculative design, and playful interactive experiences. My expertise spans interaction design, human augmentation technologies, and interdisciplinary research, particularly in the intersection of design, health, and HCI. I employ mixed methods to evaluate user experiences, providing valuable insights into the impact of emerging technologies. My current PhD research (submitted for examination on 14<sup>th</sup> August 2024) focuses on designing playful interactions involving shared bodily control between users and computers, with potential applications in health and medical contexts.

## Education

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| 2020 – present | Monash University – <i>PhD Information Technology</i> <ul style="list-style-type: none"><li>• <b>Thesis:</b> Body-Actuating Play: Towards Understanding the Design of Play where Users Share Bodily Control with a Computer</li><li>• <b>Committee:</b> Prof. Patrick Olivier, Dr. Swamy Ananthanarayan &amp; Prof. Tim Dwyer</li><li>• <b>Advisors:</b> Prof. Florian ‘Floyd’ Mueller &amp; Prof. Elise van den Hoven</li><li>• <b>Focus:</b> Interaction design, research-through-design (RtD), physical activity, and engineering</li></ul> |
| 2015 – 2017    | RMIT University – <i>Master of Design (By Research)</i> <ul style="list-style-type: none"><li>• <b>Thesis:</b> Understanding the Design of Breathing Exercise Games</li><li>• <b>Committee:</b> Prof. Stephan Greuter &amp; Dr. Lisa Dethridge</li><li>• <b>Advisors:</b> Assoc Prof. Jonathan Duckworth &amp; Prof. Florian ‘Floyd’ Mueller</li><li>• <b>Focus:</b> Interaction design, health, RtD approach, mixed-methods</li></ul>   |
| 2007 – 2011    | JNTU, Hyderabad, India – <i>Bachelors in Electronics and Communications Engineering</i>  |

## Professional Experience

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|-------------|--|
| 2017 – 2020 | <u>Senior UX Researcher, RMIT University, Melbourne, Australia</u> <p>At RMIT, I led a team in enhancing the university's digital experiences, resulting in a 15% increase in student satisfaction through a strategic redesign. My initiatives focusing on student engagement earned me the Education Leadership Award. Additionally, my data-driven insights led to significant cost reductions and developed cross-functional collaboration.</p>  |
| 2015 – 2017 | <u>Lead UX Consultant, 7 Cups</u> <p>At 7 Cups, I implemented a gamified user experience that significantly boosted engagement, resulting in a 50% increase in new users, 30% longer session durations, and 20% higher assessment completion rates across the web and mobile applications. This was achieved through extensive user research (such as A/B testing with 2000+ participants) and data analysis, focusing on key metrics like daily active users and goal completion to inform iterative design and strategic growth.</p> |
| 2011 – 2015 | <u>Co-Founder and UX Researcher, GoLive Games, Hyderabad, India</u> <p>At GoLive Games, I led user research to drive product development decisions and optimise user experiences, resulting in a 5% increase in monthly-average users and a 10% increase in player engagement. I applied engineering and design principles to enhance player experience. Additionally, I secured \$75K USD in government funding and \$350K USD in seed funding for game projects, contributing to the company's recognition for innovation.</p>       |

## Ongoing Research Projects

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| body-actuating technologies, physiological sensors (breathing, EMG, eye tracking) | Developing and exploring body-actuating technologies, such as electrical muscle stimulation, pneumatics, and exoskeletons, to facilitate playful interactions, support embodiment in everyday activities, and enhance remembering. |
| augmented reality, neurofeedback, contact improvisation                           | Working with the founder of <a href="#">HoloKit</a> , Botao Amber Hu, to use my PhD work to extend the interactive art experience called <a href="#">Cell Space</a> .  |

## Research Scholarships and Support

2016 – 2017	Collaborated with BreathingLabs.com to secure a funding of \$25k USD for my master's research.
2020 – 2024	Recipient of the Australian Government Research Training Program (RTP) Scholarship to pursue a PhD at Monash University (DP190102068).
2020 – 2024	Received an additional research and travel support scholarship worth \$25k AUD and a post-publication award worth \$6.5k AUD during my PhD.

## Teaching/Guest Lectures

2016 – 2017	I was invited as a guest lecturer to present my master's work to the Bachelor of Design (Games) students (65) during the two years of my master's research at RMIT University.
2017	I was invited by Dr. Anna Lisa Martin-Niedecken to present my work to faculty and graduate research students in the Department of Design at the Zurich University of the Arts (ZHdK).
2022	Guest lectured in the Department of Human-Centered Ubiquitous Media at LMU, Germany.
2023	Delivered a guest lecture at the Games Institute, University of Waterloo, on the user experiences and ethics of sharing bodily control with computers, a topic explored in my PhD research.

## Supervision

2016 – 2017	Supervised two honours students during my master's research project.
2020 – 2021	Co-supervised two master's students from Eindhoven University of Technology on major research projects focused on virtual reality and developing muscle memory for everyday life activities, in collaboration with my PhD supervisor (Prof. Elise van den Hoven).
2021 – 2023	Co-supervised six undergraduate research assistants over three years, in collaboration with Prof. Florian 'Floyd' Mueller, on various projects related to my PhD research.

## Service

2021 – Present	Digital Media Chair, <a href="#">Melbourne Local Chapter of ACM SIGCHI</a>
Since 2017	An organisation to bring together HCI and UX professionals, and academics.
2018	Reviewer* CHI, CHI PLAY, TEI, DIS, IMWUT, SIGGRAPH, AHs
2018	CHI PLAY – Video Co-chair
2020	CHI – Mobile App Co-chair and Student Game Design Competition Co-chair
2020	TEI – Associate chair
2021	INTERACT – Associate chair
2022	DIS – Student Volunteer Co-chair

\* Received multiple special recognitions for outstanding reviews

## Select Publications

With an **H-Index of 14**, I have over **40 publications** that have gotten **over 800 citations** at top conferences and journals such as CHI, DIS, TEI, UIST, CHI PLAY and TOCHI.

- Rakesh Patibanda, Florian 'Floyd' Mueller, Matevz Leskovsek, and Jonathan Duckworth. 2017. Life Tree: Understanding the Design of Breathing Exercise Games. In CHI PLAY '17. – My first full research paper, which has had a substantial impact on my research career, evidenced by its 140+ citations to date.
- Florian 'Floyd' Mueller, Richard Byrne, Josh Andres, and Rakesh Patibanda. Experiencing the Body as Play. In CHI '18. (**Best Paper** – Top 1% ~ 666 papers). – A project that developed my thinking as an academic and that helped in proposing my PhD research.
- Joseph La Delfa, Mehmet Aydin Baytas, Rakesh Patibanda, Hazel Ngari, Rohit Ashok Khot, and Florian 'Floyd' Mueller. Drone Chi: Somaesthetic Human-Drone Interaction. In CHI '20. (**Honourable Mention** – Top 5% ~ 760 papers). – This project was inspired by my work on "Life Tree". It got media attention from outlets like [Hackster.io](#) and [Bitcraze](#) and was also recognised with prestigious design awards.
- Yash Dhanpal Mehta, Rohit Ashok Khot, [Rakesh Patibanda](#), and Florian 'Floyd' Mueller. 2018. Arm-A-Dine: Towards Understanding the Design of Playful Embodied Eating Experiences. In Proceedings of the 2018 Annual Symposium on Computer-Human Interaction in Play (CHI PLAY '18). – Received extensive press coverage, with over 36K views on [YouTube](#), and featured on [Hackster.io](#), [The Verge](#), [Designboom](#), [Mashable](#), and [Futurism](#).
- Rakesh Patibanda, Chris Hill, Aryan Saini, Xiang Li, Yuzheng Chen, Andrii Matviienko, Jarrod Knibbe, Elise van den Hoven, and Florian 'Floyd' Mueller. Auto-Paizo Games: Towards Understanding the Design of Games That Aim to Unify a Player's Physical Body and the Virtual World. (**Best Interactivity, Audience Choice Award**). – My first full paper published during my PhD, showcasing the impact of my research on the community through the recognition of a design award.
- Fabio Zambetta, William Raffe, Marco Tamassia, Florian 'Floyd' Mueller, Xiaodong Li, Niels Quinten, Rakesh Patibanda, Daniel Dang, and Jon Satterley. Reducing Perceived Waiting Time in Theme Park Queues via an Augmented Reality Game. – My first TOCHI journal article, showcasing my experience collaborating across disciplines and institutions, along with industry partners.