

# Keerthana Govindarazan

PhD Student, Architecture, Pennsylvania State University (she/her/hers)  
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**Short bio:** I am an Architect turned UX Researcher, whose work focuses on understanding the cognitive, emotional, and behavioral effects of technology and the built environment. I am currently a **second-year Ph.D. student at the Department of Architecture at Penn State pursuing a minor in Mass Communications**. My ongoing research investigates the influence of virtual restaurant ambiance on eating behavior using a mixed reality application. With a rich educational background and UX design experience, I integrate research, design, and technology to create well-being enhancing digital and physical spaces. I am also trained in two Indian classical dances, practicing Bharatanatyam and Kathak for the last 25 years.

## WORK EXPERIENCE

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### Research Assistant

Aug 2022 - Present

Pennsylvania State University (PSU) • State College, PA

- Lab coordinator of Immersive Environments lab (IEL) at the Stuckeman School of Arts & Architecture, PSU.
- Plan & organize a symposium on Immersive Technology and Embodied Cognition for Art and Architecture in 2024.
- Teaching Assistant/VR support for Directed Research Studio (Spring 2023 and Fall 2023) for 4<sup>th</sup> and 5<sup>th</sup> year undergraduates.

### Founder / Designer

March 2020 - Aug 2022

Tuko Design House • Atlanta

- Developed UX and UI for Instagram game filters to assist small-scale companies reach a wider audience.
- Carried out graphic design projects including posters, invitations, illustrations, and presentations adhering to event color schemes/branding guidelines.
- Provided product design services and executed commissioned artworks.
- Software: Meta Spark AR Studio, Adobe Illustrator, Adobe Photoshop, Adobe After Effects.

### UX/UI Designer

Nov 2017 - June 2018

Takeleap, Interactive marketing company • Chennai, India

- Created interactive marketing experiences like desktop apps, games, projection mapping, immersive experiences, and mobile apps for product launches and tech shows.
- Performed the role of a concept artist, formulating and storyboarding unique concepts for interactive marketing experiences.
- Developed marketing ideas and product visions by wireframing, prototyping and presenting user experiences.
- Developed UX principles for apps developed for various HMDs; Created UX and UI for Oculus Rift, HTC Vive, and Microsoft HoloLens projects.
- Worked with developers to define executable experiences and to deliver UI assets (both 2D and 3D) that met the development specifications.

## Other Design Experiences

July 2013 - May 2017

Takeleap, Interactive marketing company • Chennai, India

- Digital Fabricator • Makerspace, Volumes • Paris • Nov 2016 - May 2017
- NATA Instructor/Freelance Architect/Designer • Chennai • June 2015 - Aug 2016
- Computational Design Intern • StudioSeed • Barcelona • Jan - Mar 2014
- Intern Architect • Centre for Vernacular Architecture • Chennai • July - Oct 2013

## EDUCATION

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### PhD, Architecture

Aug 2022 – May 2026

Pennsylvania State University (PSU) • State College, PA

- CGPA – **3.97** /4.0
- Research Project: I work at the intersection of neuroarchitecture, and immersive technology investigating the influence of different environmental designs on eating behavior and food consumptions.
- Courses: Research Methods in Communication, Psychological Aspects of Comm Technology, Foundations in HCI, Qualitative Research Methods in HCI, Data Analysis in Communication Science.

### M.Sc. Psychology

June 2019 - May 2021

Tamil Nadu Open University • Chennai, India

- Courses: Research Methodology, Consumer and Marketing Psychology, Health Psychology, Developmental Psychology.

### MS, Design by Data

Sep 2016 – Dec 2017

Ecole des Ponts, ParisTec • Paris, France

- Research Project titled Mindscape: User testing architectural design for behavioral patterns using a rudimentary web VR system.
- Examined the relationship between design variables and behavior, validated Christopher Alexander's patterns in VR and found support for use of Web-VR for pre-occupancy evaluation of buildings.
- Graduate research project (Mindscape: VR for architectural behavior studies) was selected to be demonstrated at IEEE ISMAR 2017, Nantes, France.

### Bachelor of Architecture

Aug 2010 - May 2015

Anna University • Chennai, India

- Internship at Center for Vernacular Architecture, Chennai and StudioSeed, Barcelona.
- NATA (National Aptitude Test in Architecture) Score - 129; All India national rank (2010) - 4

## SKILLS

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- R, SPSS
- Adobe Illustrator, Photoshop, After Effects, Premiere Pro.
- Rhino 3D, Unity, Meta Spark AR studio

## PUBLICATIONS

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- Govindarazan, K. (2021). Web-based VR for behavior analysis of architectural designs: developing and testing a prototype. *Conception & Emotion, Physiology, Neurocognition Conference*. Govindarazan, K., Ligler, H., Abbas, Y., & Duarte, J. P. (2023).
- Translating Christopher Alexander's Patterns for Immersive Virtual Reality: A rule-based approach to behavior testing in VR. In *Proceedings of the 41st Conference on Education and Research in Computer Aided Architectural Design in Europe (Vol. 2, pp. 399–408)*. Graz; eCAADe.
- Govindarazan, K., Chandran, S., & Chen, E. (2023). Impact of Virtual Reality Navigation on Emotional Response to Virtual Architectural Environments: A Pilot Study [Poster presentation]. ANFA 20th Anniversary Conference (pp. 128–129). San Diego, USA.

### Submitted

- Govindarazan, K., Yadav, D., & Mukherjee, S. (2023). 'You have a new memory': Uses and Gratifications of Automated Photo Memory Notifications in Smartphones. CHI 2024. Hawaii, USA (Submitted: 01/27/2024)

## GRANTS

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### Funded

- Recipient of Charpak Scholarship from Campus France for Graduate Studies in France.
- PhD scholarship for 2 years (Aug 2022 to May 2024) funded by the Center for Immersive Experiences (CIE), Pennsylvania State University.
- Summer Research Grant, 2023, Stuckeman Center for Design Computing (SCDC), Pennsylvania State University, \$4500
- SCDC Travel Grant for ANFA 20th Anniversary Conference, Fall 2023, Stuckeman Center for Design Computing (SCDC), Pennsylvania State University, \$1500
- SCDC Travel Grant for Moving Boundaries Program Italy 2023, Fall 2023, Stuckeman Center for Design Computing (SCDC), Pennsylvania State University, \$3200

### Submitted

- Govindarazan, K, Yasmine, A, Masterson, T, Menold, J, Seed Grant, "Dining out in NYC", SCDC Faculty Grant. Total requested: \$30,000. (Submitted: 01/16/2024)

## LEADERSHIP

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### Associate Editor

Hyphen (Student led architecture journal) • Stuckeman School of Architecture • PSU

Jan 2024 – Present

### Treasurer

Nritya (Student club for Indian Classical Dance) • PSU

Jan 2023 – July 2023

### Secretary

Graduate Research and Innovative Design (GRID) • Stuckeman School of Architecture • PSU

Aug 2022 – Sep 2023

### Student Delegate

Graduate and Professional Student Association (GPSA) • PSU

Aug 2022 – May 2023