RAJSHEKAR G S

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EXPERIENCE

Work Experience

Research Assistant

Intelligent Inclusive Interaction Design Lab, Indian Institute of Science

Mar 2020 – Present Bangalore

- Working on VR Aerospace Cockpits, in collaboration with the Aeronautical Development Agency.
- Developing VR Digital Twins of workspaces, in collaboration with British Telecom.
- Generating synthetic data to train object detection models.

AR Development Intern

V+S Design Partners

Feb 2019 – Mar 2019 Bangalore

- Developed an AR visualisation framework for architectural BIM data.
- Designed photorealistic interior environments for VR walkthroughs.

Volunteer Experience

Design Head

Apple Developers Group - Ramaiah Institute of Technology

Mar 2019 – Aug 2019 Bangalore

- Oversaw the group's UI/UX designs.

PUBLICATIONS

G. S. Rajshekar Reddy and Lingaraju G. M., ***"A Brain-Computer Interface and Augmented Reality Neurofeedback to Treat ADHD: A Virtual Telekinesis Approach,"*** 2020 IEEE International Symposium on Mixed and Augmented Reality Adjunct (ISMAR-Adjunct).

[Accepted, presenting in Nov 2020]

G. S. Rajshekar Reddy and Damien C. Rompapas, ***"VisuoTouch: Enabling Haptic Feedback in Augmented Reality through Visual Cues,"*** 2020 IEEE International Symposium on Mixed and Augmented Reality Adjunct (ISMAR-Adjunct).

[Accepted, presenting in Nov 2020]

G. S. Rajshekar Reddy, Prithvi Raj, and Lingaraju G. M., ***"IIMR: A Framework for Intangible Mid-Air Interactions in a Mixed Reality Environment,"*** 2020 ACM International Conference on Interactive Surfaces and Spaces (ISS '20).

[Accepted, presenting in Nov 2020]

G. S. Rajshekar Reddy and Damien C. Rompapas, ***"Liquid Hands: Evoking Emotional States via Augmented Reality Music Visualizations,"*** 2021 ACM International Conference on Tangible, Embedded, and Embodied Interaction (TEI '21).

[Under review]

EDUCATION

B. E in Information Science and Engineering, GPA: 7.91/10

Ramaiah Institute of Technology

2015 – 2019

RESEARCH INTERESTS

Human-Computer Interaction | Visual Computing | Neurotechnology | Haptics | Assistive Technology

MOST PROUD OF

2nd place, BR41N.IO
My project, Neospoon was awarded 2nd place at the global Brain-Computer Interface Hackathon, organised by g.tec and IEEE brain.

Expert Talk at Unite India 2019
Delivered an expert talk on persistent AR experiences at Unity's annual developer conference.

VisualizAR, AR Music Visualizer
I developed an AR particle music visualizer, which is now available on the App Store. Get it here.

SKILLS

Technical
Augmented/Virtual Reality | Interaction Design | Computer Graphics | Signal Processing | Brain-Computer Interfaces | Affective Computing | Web Design | Rapid Prototyping

Creative
Music Theory and Production | Digital Cinematography | Photography | Public Speaking

Programs
C++ | C-sharp | Unity | Matlab | Xcode | Cinema 4D | HTML, CSS, Javascript | Logic Pro X | Adobe XD | Adobe Lightroom

Abhishek Mukhopadhyay, G. S. Rajshekar Reddy, Imon Mukherjee, and Pradipta Biswas, ***"Using Virtual Environment to Train and Test CNN models in the context of COVID-19 related restrictions,"*** 2021 ACM International Conference on Intelligent User Interfaces (IUI '21).

[Under review]

Pradipta Biswas, Abhishek Mukhopadhyay, G. S. Rajshekar Reddy, KamalPreet S. Saluja, L.R.D. Murthy, Anasol Pena-Rios, and Gokul Gopal, ***"A Virtual Reality-Based System for Automatic Validation of Social Distance Measures,"*** Springer VR Special Issue on Augmented and Virtual Reality in the Time of COVID-19.

[Under review]

PROJECTS

A Brain-Computer Interface and Augmented Reality Neurofeedback to Treat ADHD: A Virtual Telekinesis Approach

Aug 2019 - Ongoing

Treatment of ADHD using EEG Neurofeedback and a gamified Augmented Reality experience. Working with NIMHANS, Bangalore to conduct a pilot study.

VisuoTouch: Enabling Haptic Feedback in Augmented Reality Through Visual Cues

Aug 2020 - Ongoing

A system that enables the semblance of haptic feedback by providing visual cues. Planning a usability study to assess the efficacy of the system.

Augmented Reality Assisted Training of Minimally Invasive Surgery Skills

Sep 2020 - Ongoing

Augmented Reality assisted suturing through a large field-of-view, optical see-through headset (Project Northstar).

CERTIFICATIONS

- **Interaction Design Specialization - University of California, San Diego via Coursera**
- **Neural Signal Processing and Analysis - Mike X Cohen via Udemy**
- **Computational Neuroscience - University of Washington via Coursera**
- **The Ultimate Guide to Game Development, Real-World Applications and Cinematography with Unity - Unity Technologies via Udemy**
- **Cinema 4D Masterclass - Ozgur Gorgun (Maxon Certified Instructor) via Udemy**