



KUNAL GUPTA

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Summary

Being passionate about designing pleasant experiences for users through not just effective but memorable and desirable designs, I adopt user-centered approach to study behavior and help create intuitive solutions that simplify life. My broad work experience is in the domain of Human Computer Interaction, social impact, and assistive devices. Currently, a Doctoral Candidate at the Empathic Computing Lab based at the Auckland Bioengineering Institute, University of Auckland. My research area involves techniques to recognise user context-relevant emotion in Virtual Reality using biosensors such as EEG, EDA, HRV, and Pupilometry. I intend to investigate the user experience, presence, and immersion augmentation through emotion-adaptive Virtual Environment-Human interaction.

Skills

User Research & Strategy:

Competitive Analysis
Contextual Inquiry
User Interviews
Guerilla Research
Focus Groups
Affinity Mapping
User Segmentation
Designing Personas
User Journey Maps
Scenario and Storyboarding
Usability Testing

Design:

Information Architecture
Design systems & UI Guides
Interaction Design
Wireframing
Rapid Interactive Prototyping
UI Design

Tools:

PopApp
Marvel InVision
MIT App Inventor
Arduino
Openframework
Keynote
Balsamiq
Sketch 3
Adobe XD
Makerbot 3D printing
Processing
Unity3D
Adobe Creative Suite

Development:

Python
C / C++
Java
C#
NodeJS
HTML
Javascript
CSS

Education

The University of Auckland, NZ - 2019 - Current
Ph.D. - Empathic Computing Laboratory, ABI
Co-advised by Prof. Mark Billinghurst and Dr. Suranga Nanayakara
Thesis: Using Context and Physiological Cues to Improve Emotion Recognition in AR/VR.

HITLabNZ at University of Canterbury, NZ - 2014 - 2015
MHIT: Research.

Rajasthan Technical University, India - 2007 - 2011
B.Tech. in Electronics and Communication Engineering

Work Experience

UX Researcher (Contract), Google India Pvt. Ltd.

India | Apr 2018 - Nov 2018

As a Researcher working in Search Social Impact team within Google Search product, I supported User Experience Research efforts across various social impact areas in India such as Education, Civic and Health.

Interaction Designer, Ducere Technologies Pvt. Ltd.

India | Nov 2015 - Apr 2018

Engaged closely with the stakeholders, conducting user research, performed requirement analysis, designed hardware and software interaction, developed lo-hi fidelity prototypes by following user-centered design process.

Graduate Research Assistant, HITLabNZ

Christchurch, NZ | Jul 2014 - Aug 2015

Design Engineer, Ducere Technologies Pvt. Ltd.

Hyderabad | Jun 2012 - Jun 2013

Design Engineer, Farasbee

Mumbai | Jan 2012 - Jun 2012

Services

Reviewer, **Journal on Multimodal**

User Interfaces 2020

Reviewer, **CHI** 2020

Volunteer, **SIGGRAPH ASIA** 2019

Volunteer, **MeasureCamp** 2019

Volunteer, **Semi Permanent** 2019

Demo, **ABI Fundraiser** 2019

Volunteer, **TEDx Christchurch** 2014

A member of **ACM**, and **SIGCHI**

Publications

Gupta, K., Hajika, R., Pai, Y. S., Duenser, A., Lochner, M., & Billinghurst, M. (2020, March). **Measuring Human Trust in a Virtual Assistant using Physiological Sensing in Virtual Reality**. In 2020 IEEE Conference on Virtual Reality and 3D User Interfaces (VR) (pp. 756-765). IEEE.

Gupta, K., Hajika, R., Pai, Y. S., Duenser, A., Lochner, M., & Billinghurst, M. (2019, November). **In AI We Trust: Investigating the Relationship between Biosignals, Trust and Cognitive Load in VR**. In 25th ACM Symposium on Virtual Reality Software and Technology (p. 33). ACM.

Hajika, R., **Gupta, K.**, Sasikumar, P., & Pai, Y. S. (2019, November). **HyperDrum: Interactive Synchronous Drumming in Virtual Reality using Everyday Objects**. In SIGGRAPH Asia 2019 XR (pp. 15-16). ACM.

Gupta, K., Lee, G. A., & Billinghurst, M. (2016). **Do You See What I See? The Effect of Gaze Tracking on Task Space Remote Collaboration**. IEEE transactions on visualization and computer graphics, 22(11), 2413-2422. IEEE

Billinghurst, M., **Gupta, K.**, Katsutoshi, M., Lee, Y., Lee, G., Kunze, K., & Sugimoto, M. (2016). **Is It in Your Eyes? Explorations in Using Gaze Cues for Remote Collaboration**. In Collaboration Meets Interactive Spaces (pp. 177-199). Springer International Publishing.

Ayyagari, S. S., **Gupta, K.**, Tait, M., & Billinghurst, M. (2015, April). **Cosense: Creating shared emotional experiences**. In Proceedings of the 33rd Annual ACM Conference Extended Abstracts on Human Factors in Computing Systems (pp. 2007- 2012). ACM.

Gupta, K. (2015). **Wearable Tools for Affective Remote Collaboration**. Masters Thesis

