

Karan Pratap Singh

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ACADEMIA

GEORGIA INSTITUTE OF TECHNOLOGY
Aug 2015 - May 2017

Masters in Human Computer Interaction

Led the Oculus NextGen Virtual Reality research group as a Graduate Research Assistant for the Experimental TV Lab at Georgia Tech.

PANJAB UNIVERSITY
Aug 2008 - May 2012

Bachelor of Engineering, Computer Science & Engineering

Awards: First Division with Honors

PROJECT EXPERIENCE

GEORGIA INSTITUTE OF TECHNOLOGY
Aug 2016 - May 2017

VR Designer/Unity Programmer/Impossible Space Architect

Planned, designed, programmed, tested and demonstrated, Ares, a room scale VR narrative experience that enables the user to enjoy seemingly limitless natural movement throughout a digital world without breaking their sense of presence.

Jan 2017 - May 2017

AR Interaction Designer and C# Developer for Microsoft Hololens

Designed and coded The BoARd Game, a room scale Augmented Reality experience for the Microsoft Hololens utilizing software based gaze tracking for room scale interactions with mixed reality objects.

Jan 2016 - Apr 2016

AR Interaction Designer and Android Developer for Google Glass

Designed and coded Heads-Up, a Google Glass app that explains complex narratives in long form TV series like Game of Thrones via seamless notifications which are synced with the scene the viewer is watching.

Aug 2015 - Dec 2015

VR UX Designer/VR Programmer/User Researcher

Conducted User Research and designed Bike Safe VR, a Virtual Reality simulation/serious game prototype that helps teach best and safe biking practices to urban commuters. Programmed the scenarios in Unity using Google Cardboard SDK.

WORK EXPERIENCE

FLICKCRAFT
Chandigarh, India
Aug 2012 - Dec 2014

CEO/Founder/Mobile UX Designer/Android Developer

Founded FlickCraft, designed and launched FlickAlbums, an Android app for managing Facebook photo albums which was downloaded more than 10,000 times on Android PlayStore in the first month itself.

GOOGLE SUMMER OF CODE
Online &
Mountain View, CA
Apr 2011 - Oct 2011

UI Designer/UI Programmer/Guide Writer

Designed and coded a multiuser chat application for KDE Plasma Educational Desktop project. Led a team of 3 KDE contributors at Google HQ at Mountain View to brainstorm, write and publish "The Beginner's Guide to KDE Development", a guide book for new KDE contributors and Google Summer of Code students.

PUBLICATIONS

CHI 2017
Denver, CO
May 2017

ARES: An Application of Impossible Spaces for Natural Locomotion in VR. In Proceedings of the 2017 CHI Conference Extended Abstracts on Human Factors in Computing Systems (pp. 218-221). ACM.

IEEE VR 2017
Los Angeles, CA
Mar 2017

Designing intentional impossible spaces in virtual reality narratives: A case study. In Virtual Reality (VR), 2017 IEEE (pp. 379-380). IEEE.

MOBILE HCI 2016
Florence, Italy
Sep 2016

Educating bicycle safety and fostering empathy for cyclists with an affordable and game-based VR app. In Proceedings of the 18th International Conference on Human-Computer Interaction with Mobile Devices and Services Adjunct (pp. 883-890). ACM.

SKILLS

Software

Unity
Blender
VRTK
Newton VR
Sketch
Git
Photoshop
Substance Painter
Illustrator
Premiere
Invision
Balsamiq

Design

VR Level Design
VR Interaction Design
VR Prototyping
AR Interaction Design
Interactive Narratives
Game Design
Sound Spatialization
Storyboarding
Game Asset Creation
3D Modelling
Texturing
Gameplay animation
3D Game Mechanics
Game Physics and AI
Wireframing
Usability Testing and Evaluation
Affinity Diagramming
Data Visualization

Programming

C#/C/C++
Java
HTML5/CSS3
JavaScript
Game Scripting

Hardware

HTC Vive
Oculus Rift
Samsung Gear VR
Google Daydream
Google Cardboard

Research

Conducting VR Demos
VR/AR Playtesting
Contextual Inquiry
Interviewing
Surveying
Focus Groups
A/B Testing
Heuristic Evaluation