

SYED IBRAHIM GHAZNAVI

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INTERESTS

Spatial Computing, Virtual Reality, Augmented Reality, Human-Computer Interaction, and Information Communication Technologies for Development (ICT4D).

ACADEMIC TRAINING

- Spring 2020** **Visiting Graduate Student, MIT Media Lab**
Massachusetts Institute of Technology
- 2020-2021** **Postdoctoral Researcher (VR) at the OCAP-Lab**
University of Oxford
- 2016-2020** **PhD. Computer Science**
Imperial College London
- 2010-2012** **M.S. Computer Science**
Lahore University of Management Sciences
- 2006-2010** **B.S. Computer Science**
National University of Computer & Emerging Sciences

EXPERIENCE

Teaching & Research:

Assistant Professor at the Information Technology University, Punjab. (January 2023 - Current)

- I am the Director of the Virtuality Labs at the Computer Science department
- I teach following courses 'Theory and Application of Virtual Reality' and 'Human Computer Interaction'.

Postdoctoral Researcher at the O-CAP, University of Oxford (December 2020- Nov 2021)

- *Self-confidence VR* – I worked on an immersive virtual reality platform to treat young patients with mental difficulties.

Visiting Graduate Student (January 2020 – April 2020)

Advisors: Joseph Paradiso, Maggie Coblenz, and Mehak Sarang

- *SpaceVR* – I worked on an immersive virtual reality platform that could enable astronauts' physical and mental wellness.

Doctoral Candidate (October 2016- September 2020)

Advisors: Abbas Edalat, Duncan Gillies and Dasha Nicholls

- *VR platform for Self-Attachment* – My research involves designing, building, and evaluating an immersive virtual reality platform for Self-attachment psychotherapy to treat patients with symptoms of chronic anxiety and depression. We built two versions of the platform 1) Meta Oculus Rift and Google Cardboard platforms.

Research Team Lead at the Information Technology University (October 2013- July 2016)

Advisors: Umar Saif, Tapan Parikh and Kurtis Heimerl

- *Crime Data Analytics* - We performed spatial and temporal analysis of the crime data (82 police stations) for the city of Lahore to investigate change in crime patterns against change in weather, time, location. Our findings were shared as newsletter with the police department; which helped them optimally deploy patrols to crime hotspots.

Research Team Lead at the Lahore University of Management Sciences (October 2012 to September 2013)

Advisors: Umar Saif, Tapan Parikh and Kurtis Heimerl

- *Rescue Base Station* – a drop-in, solar power compatible, open-source GSM communication system to reinstate cellular services like Call/SMS in scenarios where a large-scale calamity disrupts traditional modes of communication. The network is customized to support relief activities for rescue workers.

Industry:**Metaverse Consultant (Content Architect) at Educative Inc. (January 2022 - December 2023)**

- *Architect for the Web 3.0 and XR verticals* - I created following five courses on the state-of-the-art topics in Virtual and Augmented Reality Technologies:
 - [Navigating Metaverse: Thriving in the 3D Internet of the Future](#)
 - [Become an AR Developer: A Complete Guide](#)
 - [Mastering VR Development with Unity and Meta Quest 2](#)
 - [Become Proficient in WebXR: Create XR Experiences Using A-Frame](#)

Software Development Engineer at the Intagleo Systems (October 2011 to September 2012)

- I worked on TK dialogue (<http://www.teamknowledge.co.uk/>); a tool for creating and deploying custom user interfaces and call guides. I developed desktop applications and worked on .Net web forms.

TECHNICAL SKILLS

Languages: C#, Python, Java, C++, Javascript, XML, HTML, CSS, SQL

Tools & Technologies: Unity3D, Visual Studio, Avatar SDK (Head 2.0), Android Studio, Tableau, OpenBTS, Freeswitch, MS Visio, MS Project, Google FireBase, GitHub, Team Foundation Server.

Operating Systems: Linux and Windows

Databases: MySQL, SQLITE3, MS SQL Server

Other competencies: Hands-on VR application development experience, quick learner, open to learning new tools/technologies, strong OOP and problem-solving skills; have performed both as a Team player and Team leader.

PUBLICATIONS & AWARDS

Publications:

[Photorealistic Avatars to Enhance the Efficacy of Self-attachment Psychotherapy](#)

Ibrahim Ghaznavi, Duncan Gillies, Dasha Nicholls, Abbas Edalat. The Third International Conference on Artificial Intelligence and Virtual Reality (2020, Dec). Online.

[Usability Evaluation of an Immersive Virtual Reality Platform for Self-attachment Psychotherapy](#)

Ibrahim Ghaznavi, Usman Jehanzeb, Abbas Edalat, Duncan Gillies. The Fourth International Symposium on the Computing and Mental Health. (2019, May). Glasgow, United Kingdom.

[An Immersive Virtual Reality Mobile Platform for Self-Attachment](#)

David Cittern, Abbas Edalat, **Ibrahim Ghaznavi**. The International Symposium on the Artificial Intelligence and Simulation of Behaviour. (2017, Apr). Bath, United Kingdom.

[Speak My Text: A platform to Support Crowd-sourced Text-to-audio Translations](#)

Ibrahim Ghaznavi, Shan Randhawa, Usman Shahid, Bilal Saleem, Umar Saif. The African Conference on Human Computer Interaction (2016, Nov), Nairobi, Kenya.

[VillageApps: A Platform to Educate Underprivileged Communities in their Mother Tongue](#)

Ibrahim Ghaznavi, Umar Muneer, Usman Shahid, Shan Randhawa, Kashif Ali, Tapan Parikh, Umar Saif. The Seventh International Conference on Information and Communication Technologies and Development. (2015 May). Singapore.

[Rescue Base Station](#)

Ibrahim Ghaznavi, Kurtis Heimerl, Umar Muneer, Abdullah Hamid, Kashif Ali, Tapan Parikh, Umar Saif. The Fifth International Conference on Computing for Development (2014, Dec). San Jose, USA.

Awards & Honours:

Named Imperial Global Fellow 2017

Program Committee ICTD 2019 Conference

Got selected to present at the Facebook's PhD-Tech-Talk 2018.

Organizer Pakistan-ICTD 2013, Pakistan-ICTD 2014

National ICTR&D research fellowship 2012

Best graduate project award 2011

PRESS

My work on the Rescue Base Station (RBS) got coverage by the following press:

[Reuters](#), [Dailymail](#), [Voice of America](#), [Gulf News](#), [Dunya News](#), [The News International](#)

OTHER INTERESTS

Travel photography, Cycling, Chess, Yoga and Trekking.

REFERENCES

Abbas Edalat

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Duncan Gillies

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