



GIZEM ŞENEL

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PERSONAL STATEMENT

Virtual Reality Researcher with 3+ years of experience in designing, and executing Virtual Reality clinical trials, seeking a full-time data scientist role with an emphasis on extended reality technologies.

EXPERIENCE

Predoctoral Researcher

Event Lab, Universitat de Barcelona

Nov. 2019 - Present

Barcelona, SPAIN

- Event Lab conducts Virtual Reality (VR) research to build the bridge between the fields of computer science, psychology and neuroscience (www.event-lab.org) and investigates technical questions in the virtual reality environments by providing applications for psychology and neuroscience with a specific focus on body ownership and brain's body representation.
- As a Predoctoral Researcher, I carry on VR research by designing studies, identifying and optimizing possible issues with the feasibility studies before data collection, preparing and presenting research proposals for ethics commission approval, conducting studies with human participants, securing data protection and anonymity during the data acquisition process, analyzing the data obtained during the study and submitting the results as a scientific manuscript for publication. My main research interests focus on:
 - Building personalized VR environments and designing 3D avatars of the participants to investigate VR self-counseling paradigm for daily life problems for the non-clinical populations and to explore the possible applications of this paradigm in addiction research.
 - Examining the changes in the VR environments to yield technical solutions to the experience of simulator sickness.
 - Investigating the implications of virtual body transformation on people's perception of their own body and their virtual body.
 - Concurrent management of multiple masters students to advance along a multi-disciplinary line of research leading to multiple scientific manuscripts building up on each other to support an important research milestone.
- I also took part in 3D avatar creation for a VR rock concert and run experiments for a study that investigated the impact of self-observation and social interaction on persecutory thoughts the VR.
- In addition to my research roles, I have been mentoring master's students at the Institute of Neurosciences of the University of Barcelona, organizing events as the PhD Committee member at the Institute, and helping the supervision of master's student's thesis at Event Lab, Universitat de Barcelona.

Research Assistant

Event Lab, Universitat de Barcelona

Apr. 2019 - Oct. 2019

Barcelona, SPAIN

- Analyzing the data of the participant responses in a VR environment when choices were provided by a reinforcement learning algorithm.
- Translating data analysis into graphic representations by using data visualization tools.
- Helping with the data collection process with human participants.

Research Intern

Gulhane Military Medical Academy

Sep. 2016 - Jan. 2017
Istanbul, TURKEY

- Observing patients in the Clinical Psychology, Neuropsychology, Psycho-oncology and Child Psychology departments, supervised-engaging with patients and providing daily reports about their cases and treatments.

Psychology Intern

Kadikoy Municipality Children's Preventive Mental Health Centre

Jun. 2016 - Jul. 2016
Istanbul, TURKEY

- Reviewing the literature to investigate possible preventive measures for the mental health care of children who are coming from low socioeconomic backgrounds and vulnerable populations.

EDUCATION

Doctor of Philosophy in Virtual Reality, Clinical and Health Psychology

Universitat de Barcelona

2019 - 2023
Barcelona, SPAIN

- Doctoral research is funded by "la Caixa Foundation", INPhINIT Doctoral Fellowship Program.
- Co-authored scientific manuscripts related to VR research that are published in the first quartile journals.
- Took part in the Student Volunteer Program of ISMAR2020 and IEEEVR2021.
- As a PhD Committee Member at the Institute of Neurosciences of the University of Barcelona, engaged in organizations of different events and participated in the mentorship program for students as a mentor.

Master of Science in Brain and Cognition

Universitat Pompeu Fabra

2017 - 2019
Barcelona, SPAIN

- Graduated with a high GPA of 8.64 (Scale from 0 to 10).
- The scientific manuscript obtained from the MSc Thesis titled as "Behavioural and Motor Predictors of Imagination Based Decision Making" was submitted to a first quartile journal and it is under revision.
- Completed Social Cognitive Neuroscience course excellent with honors, presented a poster at an international conference, gave a presentation about the VR at a computational neuroscience retreat.

Bachelor of Psychology,

Maltepe University

2013 - 2017
Istanbul, TURKEY

- Obtained OSYM (Measuring, Selection and Placement Center) full bachelor's degree scholarship for tuition fees and additional enrollment expenses for the private foundation university.
- Graduated with a high honor's degree and a high GPA of 3.84 (Scale from 0 to 4).

PUBLICATIONS

- Slater, M., Cabriera, C., Senel, G., Banakou, D., Beacco, A., Oliva, R., Gallego, J. (2022). **The Sentiment of a Virtual Rock Concert.** Virtual Reality. <https://doi.org/10.1007/s10055-022-00685-9>
- Gorisse, G., Senel, G., Banakou, D., Beacco, A., Oliva, R., Freeman, D., Slater, M. (2021). **Self-observation of a virtual body-double engaged in social interaction reduces persecutory thoughts.** Scientific reports, 11(1), 1-13. <https://doi.org/10.1038/s41598-021-03373-x>

- Llobera, J., Beacco, A., Oliva, R., Şenel, G., Banakou, D., Slater, M. (2021). **Evaluating participant responses to a virtual reality experience using reinforcement learning.** Royal Society open science, 8(9), 210537. <https://doi.org/10.1098/rsos.210537>
- Şenel, G., Slater, M. (2020). **Conversation with Your Future Self About Nicotine Dependence.** In **International Conference on Virtual Reality and Augmented Reality** (pp. 216-223). Springer, Cham. https://doi.org/10.1007/978-3-030-62655-6_14

SKILLS & INTERESTS

Technical Skills: VR environment creation by using Unity3D and C; generating 3D characters by using Character Creator 3 and Unity3D; optimizing VR environments for different VR Head-Mounted Displays; data analysis by using Python; building artificial neural networks by using Tensor Flow libraries of Python and data modeling by using the STAN library of R; research design and

Soft Skills: Effective communication, presentation, and leadership skills developed by years of running human experiments, academic advisory and mentorship roles, remote working experience, and volunteer work.

Languages: English (C2), Turkish (C2), Spanish (B2)

Interests: Hiking; skateboarding; philosophy; Rotaract; restaurant hopping; metal/rock music; anime.

Memberships: Cognitive Science Society Member, IEEE Computer Society Member, Maltepe University Technology and Human Relationships Application and Research Center Advisory Board Member, Institute of Neurosciences of the University of Barcelona PhD Committee Member, Rotaract Barcelona Condal Member.