



# GIZEM ŞENEL

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Latest version

## PERSONAL STATEMENT

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

## EXPERIENCE

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### Predoctoral Researcher

Event Lab, Universitat de Barcelona

Nov. 2019 - Present

*Barcelona, Spain*

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 responsibilities include:

- Building personalized VR environments and designing 3D avatars of the participants to investigate VR self-counseling paradigm for problems of 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.
- Advising and mentoring master's students from the Institute of Neurosciences of the University of Barcelona.
- 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.

### 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.

## EDUCATION

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### **Doctor of Philosophy in Virtual Reality, Clinical and Health Psychology**

Universitat de Barcelona

"la Caixa Foundation" INPhINIT Doctoral Fellow

2019 - 2023

*Barcelona, Spain*

### **Master's of Science Degree in Brain and Cognition**

Universitat Pompeu Fabra

Thesis: Behavioural and Motor Predictors of Imagination-Based Decision Making

GPA: 8.64/10

2017 - 2019

*Barcelona, Spain*

### **Bachelor's Degree in Psychology,**

Maltepe University

GPA: 3.84/4

2013 - 2017

*Istanbul, Turkey*

## PUBLICATIONS

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- Cos, I., Senel, G., Maldonado, P. E., Moreno-Bote R. **Gaining Confidence by Look-at-Nothing Gazing in Decision-Making.** In Review.
- 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](https://doi.org/10.1007/978-3-030-62655-6_14)
- Demirel, B., Senel, G., Arsiwalla, X. D., Verschure, P. F. **Integrated Information, Small World Networks, and Size Effects.** In Human Brain Project Conference on Understanding Consciousness: A scientific quest for the 21st century.

## SKILLS & INTERESTS

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**Technical Skills:** VR environment and 3D avatar design using Unity3D, C# and Character Creator 3; VR environments optimization for different Head-Mounted Displays; data analysis and modeling using Python, R, and modules such as Stan, Scikit-Learn, Pandas, NumPy, SciPy, TensorFlow; research design and execution.

**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 in international conferences such as ISMAR2020 and IEEEVR2021.

**Grants and Awards:** "la Caixa Foundation" INPhINIT Doctoral Fellowship, OSYM Full Bachelor's Scholarship, Social Cognitive Neuroscience Class Honours Award.

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

**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 Ph.D. Committee Member, Rotaract Barcelona Condal Member.