## Res. Asst. Oğuz Orkun Doma

#### **Personal Information**

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#### International Researcher IDs

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## **Biography**

Oğuz Orkun Doma is an architect who has earned his Ph.D. in the Architectural Design Computing program at Istanbul Technical University.

Obtained a Bachelor's degree in Architecture in 2012 and a Master's degree in Architecture in 2014 from Bahçeşehir University. Granted a scholarship from Bahçeşehir University in 2013 to attend the M.Arch. program at Virginia Tech WAAC for one semester as a non-degree seeking visiting student. Worked as a Teaching Assistant at Bahçeşehir University Faculty of Architecture from February 2012 to August 2014. Worked as a Research Assistant at ITU Faculty of Architecture from September 2014 to July 2021.

Professional experience includes architectural design, virtual reality, game design, level design, project management, graphic design and visualization, and teaching in higher education. Academic research areas include architectural design computation, virtual and augmented reality, computer graphics and video games, design cognition, and brain-computer interfaces.

### **Education Information**

Doctorate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Mimari Tasarımda Bilişim (Dr), Turkey 2014 - 2023 Postgraduate, Bahcesehir University, Institute Of Science, Mimarlık (Yl) (Tezli), Turkey 2012 - 2014 Undergraduate, Bahcesehir University, Faculty Of Architecture And Design, Department Of Architecture, Turkey 2007 - 2012

### Foreign Languages

English, C1 Advanced

### **Dissertations**

Doctorate, DREAMSCAPE: Use of Virtual Reality in Architectural Design & Education, Istanbul Technical University, Lisansüstü Eğitim Enstitüsü, Architectural Design Computing, 2023

Postgraduate, Architectural Experience in Video Games: Spatial, Temporal & Narrative, Bahcesehir University, Institute Of Science, Architecture (M.A.), 2014

#### **Research Areas**

Art and Design, Simulation and Modelling, Computer Graphics, Augmented Reality, Virtual Reality, Human Computer Interaction, Architecture, Architectural Design, Engineering and Technology

### **Academic Titles / Tasks**

Lecturer, Bahcesehir University, Faculty Of Communication, Department Of Digital Game Design, 2023 - Continues Visiting Lecturer, Istanbul Technical University, Lisansüstü Eğitim Enstitüsü, Game and Interaction Technologies, 2023 - Continues

Research Assistant, Istanbul Technical University, Mimarlık, Mimarlık, 2014 - 2021

Research Assistant, Bahcesehir University, Faculty Of Architecture And Design, Department Of Architecture, 2012 - 2014

## Academic and Administrative Experience

Araştırma Görevlisi Fakülte Temsilcisi, Istanbul Technical University, Mimarlık, Mimarlık, 2017 - 2018 Araştırma Görevlisi Fakülte Temsilcisi, Istanbul Technical University, Mimarlık, Mimarlık, 2015 - 2016

#### **Courses**

Serious Games, Undergraduate, 2022 - 2023 Visualization in Virtual Reality, Postgraduate, 2022 - 2023

### **Designed Lessons**

Doma O. O., Şener S. M., Visualization in Virtual Reality, Postgraduate, 2018 - 2019 Doma O. O., Şener S. M., Architectural Visualization in Virtual Reality, Undergraduate, 2016 - 2017

## **Taught Courses And Trainings**

Doma O. O., Component-Based Living Units (LEGO Workshop), 2021 - 2021

Doma O. O., Bayat U., COP4454 - Introduction to Game Development with CRYENGINE, 2017 - 2018

Doma O. O., Özkan O., COOP4454 - Introduction to Game Development with CRYENGINE, 2016 - 2017

Doma O. O., Özkan O., Introduction to Level Design with CRYENGINE V, 2016 - 2016

Doma O. O., Özkan O., Video Games & Digital Narratives: A Quick Introduction, 2015 - 2015

## Articles Published in Other Journals

I. Procedural architectural settlement generator for container housing: A study on Marmara and Mediterranean Regions

Şen Bayram A. K., Torus B., Doma O. O., Şener S. M.

ESTOA: REVISTA DE LA FACULTAD DE ARQUITECTURA Y URBANISMO DE LA UNIVERSIDAD DE CUENCA, vol.12, no.24, pp.161-173, 2023 (ESCI)

 $II. \quad \textbf{An investigation of architectural design process in physical medium and VR}$ 

Doma O. O., Şener S. M.

A/Z ITU Journal of the Faculty of Architecture, vol.19, no.3, pp.631-649, 2022 (Scopus)

#### III. Dreamscape Bricks VR: An Experimental Virtual Reality Tool for Architectural Design

Doma O. O., Şener S. M.

Interaction Design and Architecture(s), no.52, pp.234-258, 2022 (Scopus)

### Refereed Congress / Symposium Publications in Proceedings

#### I. Using Modular Construction Brick-Based CAD in Online Design Education

Doma O. O., Şener S. M.

CIVAE 2021 3rd Interdisciplinary and Virtual Conference on Arts in Education, Madrid, Spain, 14 - 15 June 2021, pp.106-111

### II. Generative Systems in Design: A Container Settlement Generator

Torus B., Şen Bayram A. K., Doma O. O., Şener S. M.

iaSU 2019 "Archi-Cultural Interactions through the Silkroad", Ulaanbaatar, Mongolia, 24 - 26 June 2019, pp.51-53

#### III. bBox: A Framework for Container Settlements

Torus B., Şen Bayram A. K., Doma O. O., Şener S. M.

The Paradigmatic City (IV): Transforming Cities, İstanbul, Turkey, 8 - 10 May 2019, pp.15-24

### IV. Beyin-Bilgisayar Arayüzüyle Sanal Gerçeklikte Dinamik Etkileşim

Doma O. O., Karahan R.

10. Mimarlıkta Sayısal Tasarım Sempozyumu, İstanbul, Turkey, 27 - 28 June 2016, pp.290-299

#### V. Video Oyunu Mekanlarında Mimari Deneyim: Mekansal, Zamansal, Anlatısal

Doma O. O., Eyüce E. Ö.

8. Mimarlıkta Sayısal Tasarım Sempozyumu, İzmir, Turkey, 26 - 27 June 2014, pp.1-11

## Episodes in the Encyclopedia

#### I. Spatio-Temporal Narrative Framework for Architecture in Video Games

Doma O. O.

Springer, London/Berlin, pp.1-9, 2018

## II. EEG as an Input for Virtual Reality

Doma 0. 0.

Springer, London/Berlin, pp.1-4, 2018

#### Other Publications

## I. Gençlik Merkezleri Mimari Tasarım İlkeleri

Çolakoğlu M. B., Doma O. O.

Technical Report, pp.1-30, 2015

### **Supported Projects**

Şener S. M., Doma O. O., Güleç Özer D., Project Supported by Higher Education Institutions, DREAMSCAPE: Mimari Tasarım ve Eğitiminde Sanal Gerçeklik Kullanımı, 2018 - 2023

#### **Scientific Consultations**

Crytek Istanbul, Scientific Consultancy, Istanbul Technical University, Mimarlık, Mimarlık, Turkey, 2016 - 2019

## **Tasks In Event Organizations**

Doma O. O., International Children and Information Security Digital Games Workshop, Workshop Organization, Ankara, Turkey, Ekim 2021

Doma O. O., International Child and Information Safety Congress "Digital Games", Scientific Congress, Ankara, Turkey, Nisan 2018

#### **Metrics**

Publication: 11

## **Congress and Symposium Activities**

Uluslararası Çocuk ve Bilgi Güvenliği Kongresi: Dijital Oyunlar, Invited Speaker, Ankara, Turkey, 2018 GETEK '17 - Technology and Innovative Thinking | Istanbul University IEEE Student Branch, Invited Speaker, İstanbul, Turkey, 2017

12th ILTEK Days | Yıldız Technical University IEEE Student Branch, Invited Speaker, İstanbul, Turkey, 2017

10. Mimarlıkta Sayısal Tasarım Sempozyumu, Attendee, İstanbul, Turkey, 2016

8. Mimarlıkta Sayısal Tasarım Sempozyumu, Attendee, İzmir, Turkey, 2014

#### **Invited Talks**

Digital Dreamscapes and Architectural Design in the Metaverse, Seminar, Metametrik | Çarşamba Buluşmaları #100, Turkey, July 2022

Design in the Metaverse: Productivity and Creativity in the Virtual Future of the Real World, Seminar, Piri Reis Üniversitesi, Turkey, May 2022

Towards Metaverse Architecture: Architectural Design and Experience in Digital Realities, Seminar, Kocaeli MITAB 2022 2nd Architecture and Design Meetings: Alternate Realities, Turkey, March 2022

Game and Space in Mixed Reality, Seminar, VRDays Europe | Immersive Tech Week Istanbul, Turkey, November 2021 As a Changing and Transforming Reality: Virtual Reality, Seminar, Arkitera, Turkey, October 2020

### **Scholarships**

Virginia Tech WAAC & BAU Consortium - Visiting Graduate Student, University, 2013 - 2013

## **Awards**

Doma O. O., Best Presentation Award, Mstas 2016 X. Mimarlıkta Sayısal Tasarım Sempozyumu, June 2016

# **Artistic Activity**

Doma O. O., Sónar+D Istanbul 2023 | Dreamscape Bricks VR demonstration, Festival, April 2023 | Doma O. O., IKSV 2014, The 2nd Istanbul Design Biennial, IAPS-CSBE Network | neoIstanbul Workshop, Workshop, October 2014

# Representation and Promotion Activities

Institutional Promotion, Istanbul Technical University, Taşkışla Campus, Turkey, İstanbul, 2019 - 2019 Institutional Representation, ITU Faculty of Architecture, Turkey, İstanbul, 2015 - 2018 Institutional Promotion, ITU Faculty of Architecture, Turkey, İstanbul, 2015 - 2018 Institutional Promotion, ITU Faculty of Architecture, Turkey, İstanbul, 2014 - 2015