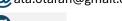
# ATA OTARAN (he/him)

# Ph.D. Computer Science

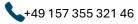
Specialized in human-machine interaction, with expertise in design, kinematic and dynamic modeling, control theory, haptic interaction, and virtual reality. Experienced in interactive systems development and evaluations.





aotaran

Richard-Wagner-Str. 68 66111 Saarbrücken



ataotaran

01.08.1992









## **EDUCATION**

09/2017 - 02/2022

09/2015 - 07/2017

09/2011 - 06/2015

# **EXPERIENCE**

02/2022 - 10/2024

03/2019 - 12/2021

09/2011 - 07/2021

## Ph.D. in Computer Science

Queen Mary University of London

 Thesis: Ankle-Actuated Human-Machine Interface for Walking in Virtual Reality Advisor: Dr. Ildar Farkhatdinov

#### M.Sc. in Mechatronics

Sabanci University, Istanbul

• GPA: 3.90/4

 Thesis: Design and Control of Series Elastic Actuated Educational Devices Advisor: Prof. Volkan Patoglu

# **B.Sc.** in Mechatronics with Minors in Mathematics

Sabanci University, Istanbul

• GPA: 3.58/4 (4th out of 38)

• Thesis: Design and Control of a Ballbot

Advisor: Prof. Volkan Patoglu

#### Postdoctoral researcher at HCI Group

Saarland University, Saarbrücken

- Collaborating on multiple HCI research projects on shape changing interfaces, wearable robotics and haptics
- Teaching Assistant at HCI Course for Winter semesters of '22 and '23:
- Supervision of three thesis projects and five project-based seminar groups

# Development works for various projects during PhD degree (Part-time salary)

Queen Mary University of London

- Developer for a virtual 3D laboratory learning environment for biomechanics courses in the Humanoid project (supervised by Dr. Aleksandra Birn-Jeffery)
- Research assistant for developing a VR locomotion interface
- Research assistant in NCNR Project on user interfaces for robot teleoperation

Teaching assistance during PhD and MSc degrees (Part-time salary)

Queen Mary University, London & Sabanci University, Istanbul

· Course topics: linear algebra, robotics, computer-aided design and Python programming





09/2015 - 06/2017

TUBITAK (Scientific and Technological Research Council of Turkey) funded project member

Sabanci University

• Implementation of a series elastic actuator for a gait rehabilitation robot

09/2011 - 06/2015

**Moderator in the Academic Support Program (Part-time)** 

Sabanci University, Istanbul

• Group learning sessions moderator for calculus and linear algebra courses

# **SKILLS**

## **Programming**

- MATLAB & Simulink
- Labview
- C++ & C#
- Python

#### Controllers and DAOs

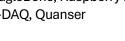
- TI C2000, Arduino
- BeagleBone, Raspberry Pi
- NI-DAQ, Quanser

# **CAD, FEA & Simulation**

- Solidworks, Inventor •
- Comsol, Ansys
- Unity
- Blender

#### **Robotics & other**

- ROS
- Gazebo
- Linux, Windows, Git



### **LANGUAGES**

German • • • • • English ••• Turkish •



#### AWARDS AND FUNDINGS

03/2021 XR4ALL European Commission funding (10K£) for commercialization of VR

locomotion interface design

09/2015 - 07/2021 Full scholarship and stipend during Masters and PhD degree studies

#### REFERENCES

### Prof. Jürgen Steimle

Postdoctoral Research Supervisor, Saarland University Email: steimle@cs.uni-saarland.de

# Dr. Ildar Farkhatdinov

Ph.D. Degree Supervisor, Kings College London

Email: ildar.farkhatdinov@kcl.ac.uk

#### Dr. Ozan Tokatli

Project Collaborator,

United Kingdom Atomic Energy Authority (UKAEA), Culham Email: ozan.tokatli@gmail.com



# **ACADEMIC PRESENTATIONS (FIRST AUTHOR)**

#### Journal Articles:

- IEEE TCGV (2021)
- IEEE TOH (2021)

#### **Conference Articles:**

- TEI '25
- HCII '24
- Humanoids '20
- Taros '19
- CRAS '18
- Eurohaptics '16 & '18

#### **Demos:**

- TEI '25
- WorldHaptics '19
- CRAS '18
- Eurohaptics '16 & '18

### **SELECTED PUBLICATIONS**

A full list of publications is available on my Github Pages and Google Scholar.

 S. Abadian, Y. Liao, <u>A. Otaran</u>, R. Dabral, M. Muehlhaus, C. Theobalt, M. Schmitz, J.Steimle 3HANDS Dataset: Learning from Humans for Generating Naturalistic Handovers with Supernumerary Robotic Limbs

CHI conference on Human Factors in Computing Systems 2025

• Ata Otaran, Yu Jiang and Jürgen Steimle

Sparsely actuated modular metamaterials for shape-changing interfaces

International Conference on Tangible, Embedded, and Embodied Interaction (TEI) 2025

 Nihar Sabnis, <u>Ata Otaran</u>, Dennis Wittchen, Johanna Didion, Jürgen Steimle and Paul Strohmeier

Foot Pedal Control: The Role of Vibrotactile Feedback in Performance and Perceived Control International Conference on Tangible, Embedded, and Embodied Interaction (TEI) 2025

 Artin Saberpour Abadian, <u>Ata Otaran</u>, Martin Schmitz, Marie Muehlhaus, Rishabh Dabral, Diogo Luvizon, Azumi Maekawa, Masahiko Inami, Christian Theobalt, and Jürgen Steimle Computational Design of Personalized Wearable Robotic Limbs

ACM Symposium on User Interface Software and Technology (UIST) 2023

Ata Otaran and Ildar Farkhatdinov

Haptic Ankle Platform for Interactive Walking in Virtual Reality

IEEE Transactions on Visualization and Computer Graphics (TVCG) 2021

Ata Otaran and Ildar Farkhatdinov

Walking-in-Place Foot Interface for Locomotion Control and Telepresence of Humanoid Robots 2020 IEEE-RAS 20th International Conference on Humanoid Robots (Humanoids) 2021

• Ata Otaran, Ozan Tokatli and Volkan Patoglu

Physical Human-Robot Interaction Using HandsOn-SEA: An Educational Robotic Platform with Series Elastic Actuation

IEEE Transactions on Haptics (TOH) 2021

• Umut Caliskan, Ardan Apaydin, Ata Otaran and Volkan Patoglu

A series elastic brake pedal to preserve conventional pedal feel under regenerative braking In 2018 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS) 2018

• Ata Otaran, Ozan Tokatli and Volkan Patoglu

HandsOn-Computing: Promoting Algorithmic Thinking Through Haptic Educational Robots *EuroHaptics 2018* 

• Ata Otaran, Ozan Tokatli and Volkan Patoglu

Hands-On Learning with a Series Elastic Educational Robot EuroHaptics 2016

