

# Omid Taheri

## Curriculum Vitae

PhD Candidate, MPI Tübingen, Germany

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*"The best way to predict the future is to create it."*

## Education

- Jul 2018 - Pres. **Max Planck Institute for Intelligent Systems,** Tuebingen, DE.  
Degree **Ph.D.** in Computer Science - Machine Learning and Computer Vision  
Supervisors Prof. Michael J. Black, Dr. Dimitrios Tzionas
- 2014 - 2017 **Sharif University of Technology,** Tehran, IR.  
Degree **M.Sc.** in Mechanical Engineering - Applied Mechanics (Control and Robotic)  
GPA **3.90/4** - *Among top 2% students in the Department*  
Thesis Gait Tracking and Analysis Using IMU and RGB Camera Data Fusion Using EKF  
Supervisors Prof. Aria Alasti, Prof. Hassan Salarieh
- 2010 - 2014 **Isfahan University of Technology,** Isfahan, IR.  
Degree **B.Sc.** in Mechanical Engineering - Mechatronics  
GPA **3.97/4** - *Ranked 1<sup>st</sup> in the Mech. Eng. Department*  
Thesis Design of Spool-Sleeve Electrohydraulic Servo Salves Based on Desired Parameters  
Supervisor Prof. Saeed Behbahani

## Publications

- 1 **GRIP: Generating Interaction Poses Conditioned on Object and Body Motion** (Under Submission)  
CVPR - 2023 **O Taheri**, Yi Zhou, D Tzionas, Ya Zhou, D Ceylan, S Pirk, MJ Black  
[Paper](#) — [Project Website](#) — [Github Code](#)
- 2 **ARCTIC: Articulated Objects in Free-form Hand Interaction** (Under Submission)  
CVPR - 2023 Z Fan, **O Taheri**, D Tzionas, M Kocabas, M Kaufmann, MJ Black, O Hilliges  
[Paper](#) — [Project Website](#)
- 3 **IPMAN: 3D Human Pose Estimation via Intuitive Physics** (Under Submission)  
CVPR - 2023 S Tripathi, L Müller, C Huang, **O Taheri**, MJ Black, D Tzionas
- 4 **GOAL: Generating 4D Whole-Body Motion for Hand-Object Grasping**  
CVPR - 2022 **O Taheri**, V Choutas, MJ Black, D Tzionas  
[Paper](#) — [Project Website](#) — [Github Code](#)
- 5 **InterCap: Joint Markerless 3D Tracking of Humans and Objects in Interaction**  
GCPR - 2022 Y Huang, **O Taheri**, MJ Black, D Tzionas  
[Paper](#) — [Project Website](#) — [Github Code](#)

6 *GRAB: A Dataset of Whole-Body Human Grasping of Objects*  
ECCV - 2020 **O Taheri**, N Ghorbani, MJ Black, D Tzionas  
[Paper](#) — [Project Website](#) — [Github Code](#)

7 *Human Leg Motion Tracking by Fusing IMUs and RGB Camera Data Using EKF*  
arXiv - 2017 **O Taheri**, H Salarieh, A Alasti  
[Paper](#)

## Research Interests

- o Virtual Avatar Animation
- o Grasp Prediction
- o Object-Interaction Detection
- o Human-Object Interaction
- o Motion Synthesis and Tracking
- o 3D Geometry Representation

## Experience

### Research & Work

Jun-Nov 2022 **PhD Research Intern**, *Adobe Inc.*, Remote, San Jose.  
July 2022 **ICVSS Summer School**, Sicity, IT.  
Winner of the AWS reading-group challenge.  
July 2021 **PAISS Summer School**, Grenoble, Remote.  
2018 - Present **Motion Capture**, *Max Planck Institute for Intelligent Systems*, Tuebingen, DE.  
Collecting motion data with various systems including:

- o Vicon MoCap System
- o RGB Cameras
- o Pressure Sensors
- o 3D Scanners
- o IMU Sensors
- o Gaze Tracker

2016 - 2017 **Motion Analysis Researcher**, *Movafaghian Research Center*, Tehran, IR.  
Capturing and analyzing human motion data using IMU sensors and RGB cameras.  
2015 - 2016 **Control Engineer**, *Rahpooyane Aflak Corporation*, Tehran, IR.  
Head of the control team in a project for tele-driving of manual cars  
2014 - 2015 **Startup**, *Self-Employment*, Tehran, IR.  
Design and Fabrication of a Controller Board for AC to DC Conversion  
Jun-Sep 2014 **Summer Internship**, *Kian-Control Corporation*, Isfahan, IR.  
Worked on automation of a company production line using Siemens PLCs

### Teaching

Jan-Jun 2015 **Teaching Assistant, B.Sc.**, *Sharif University of Technology*, Tehran, IR.  
o Mechanics of Materials and Statics o Dynamic and Control Laboratory  
Jan-Jun 2014 **Teaching Assistant, B.Sc.**, *Isfahan University of Technology*, Isfahan, IR.  
Mechatronics Laboratory

## Awards & Honors

2023 **Selected as Finalist**, *Meta PhD Fellowship Program*, Meta Inc.  
2022 **Winner of the AWS reading group competition**, *ICVSS Summer School*, Sicity, IT.  
2021 **Admitted to IMPRS-IS Program**, *MPI for Intelligent Systems*, Tuebingen, DE.  
2018 **Ph.D. Fellowship**, *Max Planck Institute for Intelligent Systems*, Tuebingen, DE.  
2018 **Ph.D. Fellowship (Declined)**, *Sharif University of Technology*, Tehran, IR.  
2014 - 2018 **Member of Iran's National Elites Foundation**, Tehran, IR.

- 2010 - 2017 **Recognized as Exceptionally-Talented Student,** Tehran, IR.
- 2014 **Honary M.Sc. Admission,** *Sharif University of Technology,* Tehran, IR.
- 2014 **M.Sc. Fellowship (*Declined*),** *Amirkabir & Isfahan Uni of Technology,* Tehran, IR.
- 2013 & 2014 **Ranked 4<sup>th</sup> & 6<sup>th</sup> in National Olympiad of Mech. Eng.,** Tehran, IR.
- 2010 - 2014 **Ranked 1<sup>st</sup> in Mechanical Engineering Department in B.Sc.,** Isfahan, IR.
- 2010 **Among Top 0.5% in National University Entrance Exam,** Isfahan, IR.

## Skills

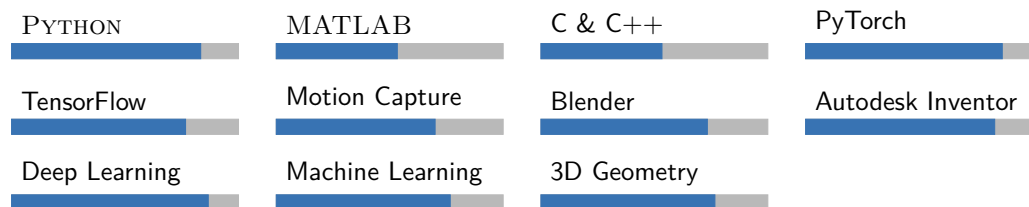
### –Team Management

- 2019 - 2021 **Data Capturing and Data Cleaning Team,** *MPI for Intelligent Systems,* Tuebingen, DE.  
Managing a team of three persons working on capturing and cleaning motion data.
- 2015 - 2016 **Control Engineering Team,** *Rahpooyane Aflak Corporation,* Tehran, IR.  
Managing a team of three students working on control and tele-drive of manual cars.

### –Mentoring

- 2022 **Farzaneh Seyedshahi,** *Co-Supervised,* MPI for Intelligent Systems, Tuebingen, DE.

### –Tools & Topics



## Talks & Presentations

- 2022 **GOAL: Generating 4D Whole-Body Motion for Hand-Object Grasping (*Poster*),** @CVPR.
- 2021 **Training Avatars How to Grasp 3D Objects (*Poster*),** @PAISS Summer School.
- 2021 **Training Virtual Humans How to Interact With Objects (*Lightning Talk*),**  
*Honorable mention prize as a top 5% talk,* @IMPRS Bootcamp - Tuebingen, DE.
- 2020 **GRAB: A Dataset of Whole-Body Human Grasping of Objects (*Talk & Poster*),**  
@ECCV - Online.
- 2020 **GRAB: A Dataset of Whole-Body Human Grasping of Objects (*Talk*),**  
@MPI\_IS - Tuebingen, DE.
- 2019 **Accurate Hand Tracking using IMU sensors (*Talk*),** @MPI\_IS - Tuebingen, DE.
- 2017 **Gait Tracking and Analysis Using IMU and RGB Camera Data Fusion Using EKF (*Talk*),**  
@SUT - Tehran, IR.

## Community Service

### Paper Review

- 2022 ○ CVPR (2 Papers) ○ IJCV (1 Paper)
- 2021 ○ 3DV (3 Papers) ○ TPAMI (1 Paper) ○ ICCV (3 Papers)
- 2020 ○ CVPR (1 Paper) ○ ECCV (1 Paper)