

# Omid Taheri

## Curriculum Vitae

PostDoc Researcher @ Perceiving Systems,  
MPI Tübingen, Germany

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🌐 [otaheri.github.io](https://otaheri.github.io)  
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*"The best way to predict the future is to create it."*

## Education

- 2024 - Pres. **Max Planck Institute for Intelligent Systems**, Tuebingen, DE.  
Degree **PostDoc** in Computer Science - AI & Computer Vision  
Supervisor Prof. Michael J. Black
- 2018 - 2024 **Max Planck Institute for Intelligent Systems**, Tuebingen, DE.  
Degree **Ph.D.** in Computer Science - AI & Computer Vision (**Summa Cum Laude**)  
Supervisors Prof. Michael J. Black, Dr. Dimitrios Tzionas  
Thesis Modelling 3D Dynamic Human-Object Interaction Motion: From Capture to Synthesis
- 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
- 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

## Publications

- InteractVLM: 3D Interaction Reasoning from 2D Foundational Models**  
CVPR - 2025 Dwivedi, Antić, Tripathi, **Taheri**, Schmid, Black, Tzionas [PDF](#) — [Code](#) — [Website](#)
- Humanity's Last Exam**  
arXiv - 2025 **Taheri** et al. (many co-authors) [PDF](#) — [Code](#) — [Dataset](#)
- Predicting 4D Hand Trajectory from Monocular Videos**  
arXiv - 2025 Ye, Feng, **Taheri**, Feng, Tulsiani, Black [arXiv](#) — [Code](#)
- NIL: No-data Imitation Learning by Leveraging Pre-trained Video Diffusion Models**  
arXiv - 2025 Albaba, Li, Diomataris, **Taheri**, Krause, Black [arXiv](#)
- A Versatile and Differentiable Hand-Object Interaction Representation**  
WACV - 2025 Morales, **Taheri**, Lacey [PDF](#) — [Code](#) — [Website](#)
- 3D Whole-body Grasp Synthesis with Directional Controllability**  
3DV - 2025 Paschalidis, Wilschut, Antić, **Taheri**, Tzionas [PDF](#) — [Code](#) — [Website](#)
- HUMOS: Human Motion Model Conditioned on Body Shape**  
ECCV - 2024 Tripathi, **Taheri**, Lassner, Black, Holden, Stoll [PDF](#) — [Code](#) — [Website](#)

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CVPR - 2024

**WANDR: Intention-guided Human Motion Generation**  
 Diomataris, Athanasiou, **Taheri**, Wang, Hilliges, Black
 

[PDF](#) — [Code](#) — [Website](#)
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3DV - 2024

**GRIP: Generating Interaction Poses Using Spatial Cues and Latent Consistency**  
**Taheri**, Zhou, Tzionas, Zhou, Ceylan, Pirk, Black
 

[PDF](#) — [Code](#) — [Website](#)
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IJCV - 2024

**InterCap: Joint Markerless 3D Tracking of Humans and Objects in Interaction from Multi-view RGB-D Images**  
 Huang, **Taheri**, Black, Tzionas
 

[PDF](#) — [Code](#) — [Website](#)
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CVPR - 2023

**ARCTIC: A Dataset for Dexterous Bimanual Hand-Object Manipulation**  
 Fan, **Taheri**, Tzionas, Kocabas, Kaufmann, Black, Hilliges
 

[PDF](#) — [Code](#) — [Website](#)
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CVPR - 2023

**IPMAN: 3D Human Pose Estimation via Intuitive Physics**  
 Tripathi, Müller, Huang, **Taheri**, Black, Tzionas
 

[PDF](#) — [Code](#) — [Website](#)
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CVPR - 2022

**GOAL: Generating 4D Whole-Body Motion for Hand-Object Grasping**  
**Taheri**, Choutas, Black, Tzionas
 

[PDF](#) — [Code](#) — [Website](#)
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GCPR - 2022

**InterCap: Joint Markerless 3D Tracking of Humans and Objects in Interaction**  
 Huang, **Taheri**, Black, Tzionas
 

[PDF](#) — [Code](#) — [Website](#)
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ECCV - 2020

**GRAB: A Dataset of Whole-Body Human Grasping of Objects**  
**Taheri**, Ghorbani, Black, Tzionas
 

[PDF](#) — [Code](#) — [Website](#)
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arXiv - 2017

**Human Leg Motion Tracking by Fusing IMUs and RGB Camera Data Using EKF**  
**Taheri**, Salarieh, Alasti
 

[PDF](#)

## Research Interests

- o Virtual Avatar Modeling
- o Human-Object Interaction
- o 3D Reconstruction
- o Motion Synthesis and Tracking
- o Generative Models
- o 3D Geometry Representation
- o Diffusion Models
- o Large Models (LLMs/VLMs)

## Experience

### Research & Work

- |              |   |                   |
|--------------|---|-------------------|
| Jun-Nov 2022 | <b>PhD Research Intern, Adobe Inc.,</b>   | Remote, San Jose. |
| July 2022    | <b>ICVSS Summer School,</b><br>Winner of the AWS challenge.   | Sicily, IT.       |
| July 2021    | <b>PAISS Summer School,</b>   | Grenoble, Remote. |
| 2018 - 2024  | <b>Motion Capture, Max Planck Institute for Intelligent Systems,</b><br>Collecting motion data with various systems including: <div style="margin-top: 10px;"> <div style="display: flex; flex-wrap: wrap;"> <div style="width: 33%;">o Vicon MoCap System</div> <div style="width: 33%;">o RGB Cameras</div> <div style="width: 33%;">o Pressure Sensors</div> <div style="width: 33%;">o 3D Scanners</div> <div style="width: 33%;">o IMU Sensors</div> <div style="width: 33%;">o Gaze Tracker</div> </div> </div> | Tuebingen, DE.    |
| 2016 - 2017  | <b>Motion Analysis Researcher, Movafaghian Research Center,</b><br>Capturing and analyzing human motion data using IMU sensors and RGB cameras.   | Tehran, IR.       |
| 2015 - 2016  | <b>Control Engineer, Rahpooyane Aflak Corporation,</b><br>Head of the control team in a project for tele-driving of manual cars   | Tehran, IR.       |

### Teaching

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

## Awards & Honors

- 2023 **Finalist, for Meta PhD Fellowship,** Meta Inc.
- 2022 **Winner of the AWS reading group competition, ICVSS Summer School,** Sicily, 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.
- 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.
- 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

- 2025 **Anna Badalyan, Research Intern, MPI for Intelligent Systems,** Tuebingen, DE.  
 May 2025–Present
- 2025 **Rick Auckerman, Research Intern, MPI for Intelligent Systems,** Tuebingen, DE.  
 Februray 2025–Present
- 2024 - 2025 **Enes Duran, Master Student, MPI for Intelligent Systems,** Tuebingen, DE.  
 September 2024–May 2025
- 2024 - 2025 **Siyao Li, PhD Intern, MPI for Intelligent Systems,** Tuebingen, DE.  
 September 2024–March 2025
- 2024 **Yufei Ye, PhD Intern, MPI for Intelligent Systems,** Tuebingen, DE.  
 April–November 2024

### Tools & Topics

- |                         |                            |                          |
|-------------------------|----------------------------|--------------------------|
| ○ PYTHON - C/C++        | ○ Diffusion Models         | ○ 3D Representation      |
| ○ PyTorch & TensorFlow  | ○ Computer Vision          | ○ Avatar Animations      |
| ○ LLMs                  | ○ Human-Object Interaction | ○ Team Management        |
| ○ Generative AI (GenAI) | ○ Motion Capture           | ○ Menotoring Researchers |
| ○ Transformers          | ○ IMU Sensors              |                          |

## Talks & Presentations

- 2024 **Modelling 3D Dynamic Human-Object Interactions: From Capture to Synthesis ([Talk](#)),**  
 @MPI-Informatik - Saarbruecken, DE.

- 2023 **Generating Realistic 3D Animations From Text** (*Startup Pitch*), @CyberValley - Tuebingen, DE.
- 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

- |      |                          |                             |                          |
|------|--------------------------|-----------------------------|--------------------------|
| 2025 | ○ <b>3DV</b> (4 Papers)  | ○ <b>CVPR</b> (3 Papers)    | ○ <b>ICCV</b> (4 Papers) |
| 2024 | ○ <b>TVCI</b> (1 Paper)  |                             |                          |
| 2023 | ○ <b>3DV</b> (4 Papers)  | ○ <b>Siggraph</b> (1 Paper) |                          |
| 2022 | ○ <b>CVPR</b> (2 Papers) | ○ <b>IJCV</b> (1 Paper)     |                          |
| 2021 | ○ <b>3DV</b> (3 Papers)  | ○ <b>TPAMI</b> (1 Paper)    | ○ <b>ICCV</b> (3 Papers) |
| 2020 | ○ <b>CVPR</b> (1 Paper)  | ○ <b>ECCV</b> (1 Paper)     |                          |