

Omid Taheri

Curriculum Vitae

PhD Candidate @ Perceiving Systems,
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 1st in the Mech. Eng. Department
Thesis Design of Spool-Sleeve Electrohydraulic Servo Valves Based on Desired Parameters
Supervisor Prof. Saeed Behbahani

Publications

- 1** *GRIP: Generating Interaction Poses Conditioned on Object and Body Motion* (Under Submission)
Preprint-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*
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*
CVPR - 2023 S Tripathi, L Müller, C Huang, **O Taheri**, MJ Black, D Tzionas
[Paper](#) — [Project Website](#) — [Github Code](#)
- 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 , Winner of the AWS reading-group challenge.	Sicily, IT.
July 2021	PAISS Summer School ,	Grenoble, Remote.
2018 - Present	Motion Capture , Max Planck Institute for Intelligent Systems, Collecting motion data with various systems including:	Tuebingen, DE.

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

Teaching

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

Awards & Honors

2023	Selected as Finalist , Meta PhD Fellowship Program,	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.
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, <i>Sharif University of Technology,</i>	Tehran, IR.
2014	M.Sc. Fellowship (<i>Declined</i>), <i>Amirkabir & Isfahan Uni of Technology,</i>	Tehran, IR.
2013 & 2014	Ranked 4th & 6th in National Olympiad of Mech. Eng.,	Tehran, IR.
2010 - 2014	Ranked 1st in Mechanical Engineering Department in B.Sc.,	Isfahan, IR.
2010	Among Top 0.5% in National University Entrance Exam,	Isfahan, IR.

Skills

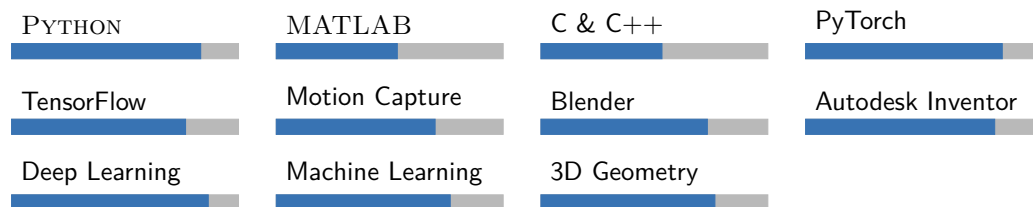
–Team Management

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

–Mentoring

2022	Farzaneh Seyedshahi, <i>Co-Supervised,</i> <i>MPI for Intelligent Systems,</i>	Tuebingen, DE.
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–Tools & Topics



Talks & Presentations

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