

# Dr. Tomáš Hodaň

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**Summary:** I am a Staff Research Scientist at Meta in Zurich. My research focuses on 2D/3D computer vision and deep learning, particularly the detection, pose estimation, and reconstruction of objects and hands, which are crucial tasks for AR/VR and robotics. Prior to joining Meta in 2020, I received my PhD in computer vision under the supervision of Prof. Jiri Matas at the Czech Technical University in Prague, during which I interned at Microsoft Research and Google. Previously, I earned my Master's degree with honours from the Brno University of Technology. Beyond my research, I organize the BOP benchmark and R6D workshops on object pose estimation and serve as an Area Chair at top-tier academic conferences. My work has been recognized with the Rector's Prize for an outstanding PhD thesis and the Dean's Prize for an excellent Master's thesis.

## Work experience

### **Meta – Staff Research Scientist (November 2020 – present)**

Redmond (USA): 2020 – 2023, Zurich (Switzerland): 2023 – present

Working on 3D computer vision (object/hand pose estimation, tracking, reconstruction, etc.)

### **Google – Research Intern (November 2018 – May 2019)**

Munich (Germany), working with Stefan Hinterstoisser

### **Microsoft Research – Research Intern (June – August 2018)**

Redmond (USA), working with Vibhav Vineet, Sudipta Sinha and Brian Guenter

### **FP7 EU projects SRS and DARWIN – Computer Vision Researcher (2011 – 2015)**

Brno University of Technology, Czech Technical University in Prague

Research and development of household and assembly robots

### **Enthusio.cz – Founder (2005 – 2012)**

Design and development of e-shops, web presentations, brand identities

## Education

### **PhD degree in computer vision (2013 – 2020, defended in 2021)**

Czech Technical University in Prague, Faculty of Electrical Engineering

Doctoral thesis: *Pose Estimation of Specific Rigid Objects*

Supervisor: Prof. Jiří Matas, reviewers: Prof. Vincent Lepetit, Prof. Markus Vincze, Dr. Slobodan Ilic

### **Master's degree (with honours) in computer science (2010 – 2013)**

Brno University of Technology, Faculty of Information Technology

Master's thesis: *Specular Reflection Detection and Removal From Image Sequences*

Supervisors: Dr. Robby T. Tan and Prof. Adam Herout

### **Exchange study programme in game and media technology (2010 – 2011)**

Utrecht University, Faculty of Science

### **Bachelor's degree in computer science (2007 – 2010)**

Brno University of Technology, Faculty of Information Technology

## Awards

**Rector's prize for an outstanding PhD thesis (2021)**, Czech Technical University in Prague

**Dean's prize for excellent Master's thesis (2013)**, Brno University of Technology

## Selected publications

Google Scholar citations: 3774 (January 2026)

**HOT3D: Hand and Object Tracking in 3D from Egocentric Multi-View Videos** (CVPR 2025)

Prithviraj Banerjee, Sindi Shkodrani, Pierre Moulon, Shreyas Hampali, Shangchen Han, Fan Zhang, Linguang Zhang, Jade Fountain, Edward Miller, Selen Basol, Richard Newcombe, Robert Wang, Jakob Julian Engel, [Tomáš Hodaň](#)

**FoundPose: Unseen Object Pose Estimation with Foundation Features** (ECCV 2024)

Evin Pınar Örnek, Yann Labbé, Bugra Tekin, Lingni Ma, Cem Keskin, Christian Forster, [Tomáš Hodaň](#)

**In-Hand 3D Object Scanning from an RGB Sequence** (CVPR 2023)

Shreyas Hampali, [Tomáš Hodaň](#), Luan Tran, Lingni Ma, Cem Keskin, Vincent Lepetit

**AssemblyHands: Towards Egocentric Activity Understanding via 3D Hand Pose Estimation** (CVPR 2023)

Takehiko Ohkawa, Kun He, Fadime Sener, [Tomáš Hodaň](#), Luan Tran, Cem Keskin

**Neural Correspondence Field for Object Pose Estimation** (ECCV 2022)

Lin Huang, [Tomáš Hodaň](#), Lingni Ma, Linguang Zhang, Luan Tran, Christopher Twigg, Po-Chen Wu, Junsong Yuan, Cem Keskin, Robert Wang

**LISA: Learning Implicit Shape and Appearance of Hands** (CVPR 2022)

Eric Corona, [Tomáš Hodaň](#), Minh Vo, Francesc Moreno-Noguer, Chris Sweeney, Richard Newcombe, Lingni Ma

**EPOS: Estimating 6D Pose of Objects with Symmetries** (CVPR 2020)

[Tomáš Hodaň](#), Dániel Baráth, Jiří Matas

**Learning Surrogates via Deep Embedding** (ECCV 2020)

Yash Patel, [Tomáš Hodaň](#), Jiří Matas

**BlenderProc: Reducing the Reality Gap with Photorealistic Rendering** (RSS Workshops 2020)

Maximilian Denninger, Martin Sundermeyer, Dominik Winkelbauer, Dmitry Olefir, [Tomáš Hodaň](#), Youssef Zidan, Mohamad Elbadrawy, Markus Knauer, Harinandan Katam, Ahsan Lodhi

**Photorealistic Image Synthesis for Object Instance Detection** (ICIP 2019)

[Tomáš Hodaň](#), Vibhav Vineet, Ran Gal, Emanuel Shalev, Jon Hanzelka, Treb Connell, Pedro Urbina, Sudipta N. Sinha, Brian Guenter

**BOP: Benchmark for 6D Object Pose Estimation** (ECCV 2018)

[Tomáš Hodaň](#), Frank Michel, Eric Brachmann, Wadim Kehl, Anders Glent Buch, Dirk Kraft, Bertram Drost, Joel Vidal, Stephan Ihke, Xenophon Zabulis, Caner Sahin, Fabian Manhardt, Federico Tombari, Tae-Kyun Kim, Jiří Matas, Carsten Rother

**T-LESS: An RGB-D Dataset for 6D Pose Estimation of Texture-less Objects** (WACV 2017)

[Tomáš Hodaň](#), Pavel Haluza, Štěpán Obdržálek, Jiří Matas, Manolis Lourakis, Xenophon Zabulis

## Activities

**Organized the R6D workshop series on object pose estimation** – <http://cmp.felk.cvut.cz/sixd>

(at ICCV'15, ECCV'16, ICCV'17, ECCV'18, ICCV'19, ECCV'20, ECCV'22, ICCV'23, ECCV'24, ICCV'25)

**Organized BOP challenges on object pose estimation** – <http://bop.felk.cvut.cz>

**Other co-organized events:**

OpenCV Perception Challenge for Bin-Picking (CVPR'25)

PIRA Workshop on Perception for Industrial Robotics Automation (CVPR'25)

**Area chair at CVPR'25, CVPR'26, ECCV'26; regular reviewer at top-tier conferences**

## Teaching

**Pattern Recognition and Machine Learning** – a course at the Faculty of Electrical Engineering, Czech Technical University in Prague (2013/14, 2014/15, 2017/18)