

CURRICULUM VITAE (last update: September 29th, 2020)

# TOMÁŠ HODAŇ

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## Education

### **PhD degree in computer vision**

Czech Technical University in Prague, Center for Machine Perception (2013 – 2020 expected)

Topic of PhD thesis: *Object Detection and 6D Object Pose Estimation*

Supervisor: Prof. Jiří Matas

### **Master's degree (with honours) in information technology**

Brno University of Technology, Faculty of Information Technology (2010 – 2013)

Master's thesis topic: *Specular Reflection Detection and Removal From Image Sequences* (supervised by

Dr. Robby T. Tan and Prof. Adam Herout)

### **Exchange study programme in game and media technology**

Utrecht University, Faculty of Science (2010 – 2011)

Topic of experimentation project: *Depth From Optical Flow* (supervised by Dr. Robby T. Tan)

### **Bachelor's degree in information technology**

Brno University of Technology, Faculty of Information Technology (2007 – 2010)

Bachelor's thesis topic: *Web Portal for GPS Tracks Processing*

## Work Experience

### **PhD intern – Google**

Munich, Germany (November 2018 – May 2019), working with Stefan Hinterstoisser

### **Research intern – Microsoft Research**

Redmond, USA (June – August 2018), working with Vibhav Vineet, Sudipta Sinha and Brian Guenter

### **Computer vision researcher – DARWIN FP7 EU project**

Czech Technical University in Prague (2013 – 2015)

Task: Design and implementation of the vision module for an assembly robot

### **Computer vision researcher – SRS FP7 EU project**

Brno University of Technology (2011 – 2012)

Task: Research and development for a domestic robot supporting elderly people

### **Owner, developer, designer – Enthusio.cz**

A company focused on web development (2005 – 2012)

## Publications

**T. Hodaň**, D. Baráth, J. Matas, *EPOS: Estimating 6D Pose of Objects with Symmetries*, IEEE Conference on Computer Vision and Pattern Recognition (CVPR) 2020, Seattle, USA

Y. Patel, **T. Hodaň**, J. Matas, *Learning Surrogates via Deep Embedding*, European Conference on Computer Vision (ECCV) 2020, Glasgow, Scotland

**T. Hodaň**, M. Sundermeyer, B. Drost, Y. Labbé, E. Brachmann, F. Michel, C. Rother, J. Matas, *BOP Challenge 2020 on 6D Object Localization*, European Conference on Computer Vision Workshops (ECCVW) 2020, Glasgow, Scotland

**T. Hodaň**, V. Vineet, S. N. Sinha, R. Gal, E. Shalev, J. Hanzelka, T. Connell, P. Urbina, B. Guenter, *Photorealistic Image Synthesis for Object Instance Detection*, IEEE International Conference on Image Processing (ICIP) 2019, Taipei, Taiwan

**T. Hodaň**, F. Michel, E. Brachmann, W. Kehl, A. G. Buch, D. Kraft, B. Drost, J. Vidal, S. Ihrke, X. Zabulis, C. Sahin, F. Manhardt, F. Tombari, T.-K. Kim, J. Matas, C. Rother, *BOP: Benchmark for 6D Object Pose Estimation*, European Conference on Computer Vision (ECCV) 2018, Munich, Germany

**T. Hodaň**, P. Haluza, Š. Obdržálek, J. Matas, M. Lourakis, X. Zabulis, *T-LESS: An RGB-D Dataset for 6D Pose Estimation of Texture-less Objects*, IEEE Winter Conference on Applications of Computer Vision (WACV) 2017, Santa Rosa, USA

**T. Hodaň**, J. Matas, Š. Obdržálek, *On Evaluation of 6D Object Pose Estimation*, European Conference on Computer Vision Workshops (ECCVW) 2016, Amsterdam, The Netherlands

**T. Hodaň**, X. Zabulis, M. Lourakis, Š. Obdržálek, J. Matas, *Detection and Fine 3D Pose Estimation of Texture-less Objects in RGB-D Images*, IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS) 2015, Hamburg, Germany

**T. Hodaň**, D. Damen, W. Mayol-Cuevas, J. Matas, *Efficient Texture-less Object Detection for Augmented Reality Guidance*, IEEE International Symposium on Mixed and Augmented Reality Workshops (ISMARW) 2015, Fukuoka, Japan

**T. Hodaň**, *Web Portal for GPS Tracks Processing*, In Proceedings of Student EEICT 2010, Brno University of Technology, Czech Republic

## Awards

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

## Teaching

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

**Supervised students** – Pavel Zedník (MSc. thesis, 2015), Pavel Haluza (Bc. thesis, 2017)

## Other Activities

**Co-organized workshops on 6D object pose estimation** – ICCV'15, ECCV'16, ICCV'17, ECCV'18, ICCV'19, ECCV'20 ([http://cmp.felk.cvut.cz/sixd/workshop\\_2020](http://cmp.felk.cvut.cz/sixd/workshop_2020))

**Co-organized challenges on 6D object pose estimation** – <https://bop.felk.cvut.cz>