

Aljoša Ošep

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RESEARCH INTERESTS

Computer Vision · Robotic Vision · Machine Learning · Multi-Object Tracking · Dynamic SLAM · 3D Reconstruction · 2D/3D Scene Segmentation · Open-Set Learning

EDUCATION

RWTH Aachen University, Aachen, Germany

- **Ph.D. in Computer Science** Nov 2013 – Jun 2019
 - Thesis: Vision-based Category Agnostic Object Tracking for Mobile Robots and Intelligent Vehicles
 - Supervisor: Prof. Dr. Bastian Leibe
 - External Examiner: Prof. Dr. David Held, Carnegie Mellon University
 - Final grade: Summa Cum Laude (with highest distinction)

University of Bonn, Bonn, Germany

- **M.Sc. in Computer Science** Sep 2010 – Mar 2013
 - Thesis: Multi-View 3D Reconstruction of Highly-Specular Objects
 - Focus: Computer Vision, Robotics, Computer Graphics
 - Final grade: 1.3 (scale: 1.0 - excellent, 4.0 - sufficient)

University of Maribor, Maribor, Slovenia

- **B.Sc. in Computer Science** Sep 2007 – Sep 2010
 - Final grade: 9.59 (scale: 10.0 - excellent, 6.0 - sufficient)

RESEARCH EXPERIENCE

Technical University of Munich

- **Postdoctoral Researcher, Dynamic Vision and Learning Group** Aug 2019 – ongoing
 - Focus: multi-object tracking, tracking-based object discovery, unsupervised video object segmentation, dynamic SLAM

RWTH Aachen University

- **Graduate Research Student (Ph.D.), Computer Vision Group** Nov 2013 – Jun 2019
 - Supervisor: Prof. Dr. Bastian Leibe
 - Focus: open-set 3D multi-object tracking
 - Teaching: Machine Learning (WS'13, SS'16), Computer Vision (WS'14)

University of Bonn

- **Undergraduate Research Student, Computer Graphics Group** May 2011 – Mar 2013
 - Supervisors: Prof. Dr. Reinhard Klein, Prof. Dr. Andreas Weber, and Dr. Michael Weinmann
 - Focus: 3D reconstruction, image-based material retrieval, physics-based modeling of material deformation

SELECTED PUBLICATIONS

- A. Athar, S. Mahadevan, A. Ošep, L. Leal-Taixe, and B. Leibe, “STEm-Seg: Spatio-temporal Embeddings for Instance Segmentation in Videos,” in *ECCV*, Mar 2020.
- Y. Xu, A. Ošep, Y. Ban, R. Horaud, L. Leal-Taixe, and X. Alameda-Pineda, “How To Train Your Deep Multi-Object Tracker,” in *CVPR*, Seattle, USA, Jan 2020.
- A. Ošep and P. Voigtlaender M. Weber and J. Luiten and B. Leibe, “4D Generic Video Object Proposals,” in *ICRA*, Paris, France, Jan 2020.
- A. Ošep* and P. Voigtlaender* and J. Luiten and B. Leibe, “Large-Scale Object Mining for Object Discovery from Unlabeled Video,” in *ICRA*, Montreal, Canada, May 2019.
- P. Voigtlaender and M. Krause and A. Ošep and J. Luiten and B.B.G. Sekar and A. Geiger and B. Leibe, “MOTS: Multi-Object Tracking and Segmentation,” in *CVPR*, Long Beach, USA, Jun 2019.
- A. Ošep and W. Mehner and P. Voigtlaender and B. Leibe, “Track, then Decide: Category-Agnostic Vision-based Multi-Object Tracking,” in *ICRA*, Brisbane, Australia, May 2018.
- A. Ošep and W. Mehner and M. Mathias and B. Leibe, “Combined Image- and World-Space Tracking in Traffic Scenes,” in *ICRA*, Singapore, Singapore, May 2017.
- M. Weinmann and A. Ošep and R. Ruiters and R. Klein, “Multi-View Normal Field Integration for 3D Reconstruction of Mirroring Objects,” in *ICCV*, Sydney, Australia, Dec 2013.

HONORS ▪ National (Slovenian) scholarship for gifted students

Sep 2008 – Mar 2013

HOBBIES Travelling, Football, Rock Climbing

REFERENCES ▪ **Prof. Dr. Bastian Leibe**
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▪ **Prof. Dr. Laura Leal-Taixe**
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