# Aljoša Ošep

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### **EDUCATION**

### **RWTH Aachen University**, Aachen, Germany

■ Ph.D. in Computer Vision and Machine Learning

Nov 2013 - now

- Thesis: Vision-based Category Agnostic Object Tracking for Mobile Robots and Intelligent Vehicles
- Adviser: Prof. Dr. Bastian Leibe
- Focus: Computer Vision and Machine Learning

### **University of Bonn**, Bonn, Germany

■ MSc. in Computer Science

Sep 2010 – Mar 2013

- Thesis: Multi-View 3D Reconstruction of Highly-Specular Objects
- Focus: Computer Vision, Robotics, Computer Graphics

### University of Maribor, Maribor, Slovenia

■ BSc. in Computer Science

Sep 2007 - Sep 2010

### RESEARCH EXPERIENCE

### **RWTH Aachen University**

• Graduate Research Student (Ph.D.), Computer Vision Group

Sep 2013 – now

- Supervisors: Prof. Dr. Bastian Leibe
- Focus: Vision-based multi-object tracking and object discovery

#### **University of Bonn**

Graduate Research Student, Computer Graphics Group

Apr 2013 – Aug 2013

May 2011 – Mar 2013

- Supervisors: Prof. Dr. Andreas Weber and Prof. Dr. Dominik L. Michels
- Focus: Physics-based modelling of material deformation
- Undergraduate Research Student, Computer Graphics Group
  - Supervisors: Prof. Dr. Reinhard Klein and Dr. Michael Weinmann
  - Focus: 3D reconstruction, image-based material retrieval

Undergraduate Research Student, Autonomous Intelligent Systems Group

Sep 2011 – Apr 2012

- Supervisors: Prof. Dr. Sven Behnke
- Focus: Teaching assistant for the Cognitive Robotics course

### **PUBLICATIONS**

- A. Ošep\*, P. Voigtlaneder\*, J. Lutien and B. Leibe, "Large-Scale Object Discovery and Detector Adaptation from Unlabeled Video," Arxiv Preprint: arXiv:1712.08832 Dec 2017.
- A. Ošep and W. Mehner and P. Voigtlaneder 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.
- D. Klostermann and A. Ošep and J. Stueckler and B. Leibe, "Unsupervised Learning of Shape-Motion Patterns for Objects in Urban Street Scenes," in *BMVC*, York, UK, Sep 2016.
- D. Kochanov and A. Ošep and J. Stueckler and B. Leibe, "Scene Flow Propagation for Semantic Mapping and Object Discovery in Dynamic Street Scenes," in *IROS*, Daejeon, South Korea, Oct 2016.
- A. Ošep and A. Hermans and F. Engelmann and D. Klostermann and B. Leibe, "Multi-Scale Object Candidates for Generic Object Tracking in Street Scenes," in *ICRA*, Stockholm, Sweden, May 2016.
- D. Mitzel and J. Diesel, <u>A. Ošep</u> and U. Rafi and B. Leibe, "A Fixed-Dimensional 3D Shape Representation for Matching Partially Observed Objects in Street Scenes," in *ICRA*, Seattle, USA, May 2015.
- 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.
- M. Weinmann and R. Ruiters and A. Ošep and C. Schwartz and R. Klein, "Fusing Structured Light Consistency and Helmholtz Normals for 3D Reconstruction," in *BMVC*, Surrey, UK, Sep 2012.

## AWARDS & SCHOLARSHIPS

National (Slovenian) scholarship for gifted students

Sep 2008 – Mar 2013

LANGUAGES

- Slovenian: Native language.
- English: Fluent (speaking, reading, writing).
- German: Intermediate (reading); basic (speaking, writing).

RESEARCH

My research interest lie at the intersection between cognitive robotics and computer vison:

**INTERESTS** • Scene understanding: Multi-object tracking, semantic scene and instance segmentation, SLAM

■ Life-long learning: Object discovery, learning via scene exploration, weakly-supervised and unsupervised learning

**INTERESTS** 

Travelling, Football, Rock Climbing.

REFERENCES

■ Prof. Dr. Bastian Leibe

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