# Aljoša Ošep

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### RESEARCH INTERESTS

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

#### **EDUCATION**

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

■ Ph.D. in Computer Science

Nov 2013 – ongoing

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

### 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

# **RWTH Aachen University**

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

Nov 2013 – ongoing

- Supervisor: Prof. Dr. Bastian Leibe
- Research: Vision-based multi-object tracking and object discovery
- 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 modelling of material deformation

# SELECTED PUBLICATIONS

- A. Ošep\* and P. Voigtlaender\* and J. Luiten 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. 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.
- 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.
- 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

# TECHNICAL SKILLS

- Programming languages: C++, Python, MATLAB, Java
- Tools: OpenCV, Point Cloud Library (PCL), Tensorflow

#### **HOBBIES**

Travelling, Football, Rock Climbing

#### REFERENCES

#### • Prof. Dr. Bastian Leibe

**RWTH Aachen University** 

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