

Curriculum Vitae of Jan Hosang

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Date of birth: May 14, 1984
Citizenship: German
Marital status: married

Education

Max Planck Institute for Informatics, Saarbrücken, Germany 3/2012 – 5/2017
Ph.D. in Computer Science (Dr.-Ing.), supervisor: Bernt Schiele
RWTH Aachen University, Germany 10/2005 – 8/2011
Diploma of Computer Science, thesis supervisor: Bastian Leibe
Imperial College London 10/2008 – 9/2009
Erasmus exchange student
Ruhrtal-Gymnasium, Schwerte, Germany 5/2004
Abitur

Professional experience

Research Assistant, Max Planck Institute for Informatics, Germany 3/2012 – 5/2017
Computer Vision and Multimodal Computing, supervisor: Bernt Schiele
Work on object detection in computer vision, mostly in the context of pedestrian or people detection. In-depth analysis of detection proposals and their evaluation: Which metrics actually correlate with detection performance? Pedestrian detection with neural networks for detection without problem specific models. Learnable non-maximum suppression that overcomes inherent problems of the traditional approach. Weakly supervised instance segmentation. Analyses of the history of pedestrian detection and failure modes of current pedestrian detectors.
Involved: Deep learning (Tensorflow, Caffe), Python, C++, Matlab, cluster parallelization (SGE)
Software Engineering Intern, Google, Zürich, Switzerland 10/2011 – 1/2012
Handwriting recognition team, supervisor: Thomas Deselaers
Handwriting recognition based on inertial sensors when the phone is used like a pen or laser pointer. Reconstruction of the phones path on paper and on-device recognition of the handwriting.
Involved: Java, C++, build tools, protobuf
Student Researcher, RWTH Aachen University, Germany
Mobile Multimedia Processing (Bastian Leibe) 11/2009 – 8/2011
Human Language Technology & Pattern Recognition (Hermann Ney) 10/2006 – 9/2008

Awards

UCSD Data Mining Contest, 1st place, 301 teams participated 7/2009
Data Mining Cup, 3rd place, 618 students from 164 different universities participated 6/2008
Sun Software Award, 2nd place, 12 teams participated 12/2007
Data Mining Cup, 5th place, 688 students from 159 different universities participated 6/2007
informatikCup, 1st place 3/2007
Datastructures and Algorithms, RWTH, 1st place 8/2006
Jugend Forscht, Regionalwettbewerb, 1st place 2/2004

Academic activities

Conference reviews: CVPR (2013–2017), ICCV/ECCV (2012–2014), NIPS (2016), GCPR (2015), ACCV (2014)

Journal reviews: TPAMI (2016)

Tutorial organisation: Tutorial on Efficient Object Detection in conjunction with ICCV, Santiago, Chile, December 2015.

Language skills

German (mother tongue), English (business fluent), French (basic)

Computing skills

Programming languages

Fluent: Python, C/C++, Matlab, bash/zsh

Good: Cuda C++, Java, Go

Parallel computing

Usage and administration of Sun Grid Engine (approx. 3700 CPUs, 66 GPUs)

Deep learning frameworks: Caffe, Tensorflow

References

Prof. Dr. Bernt Schiele, Max Planck Institute for Informatics

Prof. Dr. Vittorio Ferrari, University of Edinburgh

Publications by Jan Hosang

Total number of citations: 801

h-index: 7

Theses

- [1] Jan Hosang. "Analysis and Improvement of the Visual Object Detection Pipeline". PhD thesis. Universität des Saarlandes, 2017.
- [2] Jan Hosang. "Towards Large-Scale Categorization Using Min-Hash". Diploma Thesis. RWTH Aachen University, 2011.

Journal Articles

- [3] Shanshan Zhang, Rodrigo Benenson, Mohamed Omran, Jan Hosang, and Bernt Schiele. "Towards reaching human performance in pedestrian detection". In: *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)* (2017).
- [4] Jan Hosang, Rodrigo Benenson, Piotr Dollár, and Bernt Schiele. "What makes for effective detection proposals?" In: *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)* (2015).
- [5] Thomas Deselaers, Daniel Keysers, Jan Hosang, and Henry Rowley. "GyroPen: Gyroscopes for Pen-Input with Mobile Phones". In: *IEEE Trans. on Human-Machine Systems* (2014).
- [6] Christian Buck, Tobias Gass, Andreas Hannig, Jan Hosang, Stephan Jonas, Jan-Thorsten Peter, Pascal Steingrube, and Jan Hendrik Ziegeldorf. "Data-Mining-Cup 2007". In: *Informatik-Spektrum* 31.6 (2008).

Conference Papers

- [7] Jan Hosang, Rodrigo Benenson, and Bernt Schiele. "Learning Non-Maximum Suppression". In: *Proc. IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*. 2017.
- [8] Anna Khoreva, Rodrigo Benenson, Jan Hosang, Matthias Hein, and Bernt Schiele. "Weakly Supervised Semantic Labelling and Instance Segmentation". In: *Proc. IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*. 2017.
- [9] Jan Hosang, Rodrigo Benenson, and Bernt Schiele. "A Convnet for Non-Maximum Suppression". In: *Proc. of the German Conference on Pattern Recognition (GCPR)*. 2016.
- [10] Shanshan Zhang, Rodrigo Benenson, Mohamed Omran, Jan Hosang, and Bernt Schiele. "How Far are We from Solving Pedestrian Detection?" In: *Proc. IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*. 2016.
- [11] Jan Hosang, Rodrigo Benenson, Mohamed Omran, and Bernt Schiele. "Taking a deeper look at pedestrians". In: *Proc. IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*. 2015.
- [12] Rodrigo Benenson, Mohamed Omran, Jan Hosang, and Bernt Schiele. "Ten years of pedestrian detection, what have we learned?" In: *European Conf. on Computer Vision (ECCV), CVRSUAD workshop*. 2014.
- [13] Jan Hosang, Rodrigo Benenson, and Bernt Schiele. "How good are detection proposals, really?" In: *Proc. of the British Machine Vision Conf. (BMVC)*. 2014.
- [14] Tobias Weyand, Jan Hosang, and Bastian Leibe. "An Evaluation of Two Automatic Landmark Building Discovery Algorithms for City Reconstruction". In: *European Conf. on Computer Vision (ECCV), RMLE workshop*. 2010.