

ANDREAS GEIGER

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EMPLOYMENT

- University of Tübingen, Germany** *from March 2018 - now*
Full Professor, Department of Computer Science, Autonomous Vision Group
- MPI for Intelligent Systems, Tübingen, Germany** *from June 2016 - now*
Independent Max-Planck Research Group Leader, Autonomous Vision Group
- ETH Zürich, Switzerland** *from September 2016 - February 2018*
Visiting Professor, Computer Vision and Geometry Group (interim for Marc Pollefeys)
- MPI for Intelligent Systems, Tübingen, Germany** *June 2013 - May 2016*
Research Scientist & Group Leader, Perceiving Systems Department
- Karlsruhe Institute of Technology, Germany** *September 2008 - May 2013*
Research and Teaching Assistant, Department of Measurement and Control Systems

EDUCATION

- Karlsruhe Institute of Technology, Germany** *September 2008 - April 2013*
Ph.D. in Computer Vision, Department of Measurement and Control Systems
Ph.D. Thesis: Probabilistic Models for 3D Urban Scene Understanding from Movable Platforms
Advisors: Christoph Stiller, Raquel Urtasun
Grade: 1.0/1.0 (awarded with distinction)
- Massachusetts Institute of Technology, USA** *July 2008*
Master Thesis: Human Body Tracking with Rank Priors for Non-Linear Dimensionality Reduction
Advisors: Trevor Darrell, Raquel Urtasun, Rainer Stiefelhagen
Grade: 1.0/1.0
- Ecole Polytechnique Fédérale de Lausanne, Switzerland** *February 2006*
Bachelor Thesis: Automatic Multiple Camera Calibration
Advisors: Pascal Fua, Vincent Lepetit
Grade: 1.0/1.0
- Karlsruhe Institute of Technology, Germany** *October 2003 - July 2008*
Department of Computer Science and Mathematics
Computer Science: Diploma
Grade: 1.0/1.0 (awarded with distinction, ranked #4/247)

INTERNATIONAL AND RESEARCH EXPERIENCE

- Visiting Researcher** *June - July 2010, July 2011, June 2012*
TTI Chicago (with Raquel Urtasun)
- Visiting Researcher** *March - May 2010*
ETH Zürich (with Marc Pollefeys)
- Research Assistant** *September 2008 - February 2013*
Karlsruhe Institute of Technology (with Christoph Stiller)
- Visiting Student** *February - July 2008*
Massachusetts Institute of Technology (with Trevor Darrell)
- Visiting Student** *September 2005 - February 2006*
Ecole Polytechnique Fédérale de Lausanne (with Pascal Fua and Vincent Lepetit)

TEACHING EXPERIENCE

University of Tübingen: Computer Vision Lecturer (150 students)	<i>April 2021 - July 2021</i>
University of Tübingen: Deep Learning Lecturer (250 students)	<i>November 2020 - March 2021</i>
University of Tübingen: ML in Graphics and Vision Lecturer (50 students)	<i>April 2020 - July 2020</i>
University of Tübingen: Self-driving Cars Lecturer (80 students)	<i>October 2019 - February 2020</i>
University of Tübingen: ML in Graphics and Vision Lecturer (50 students)	<i>April 2019 - July 2019</i>
University of Tübingen: Self-driving Cars Lecturer (50 students)	<i>October 2018 - February 2019</i>
University of Tübingen: ML in Graphics and Vision Lecturer (40 students)	<i>April 2018 - July 2018</i>
ETH Zürich: Computer Vision Lecturer (170 students)	<i>September 2017 - December 2017</i>
ETH Zürich: 3D Vision Lecturer (50 students)	<i>February 2017 - June 2017</i>
ETH Zürich: Computer Vision Lecturer (120 students)	<i>September 2016 - December 2016</i>
University of Tübingen: Graphical Models in Computer Vision Lecturer (30 students)	<i>April 2016 - July 2016</i>
University of Tübingen: Graphical Models in Computer Vision Lecturer (30 students)	<i>Oct. 2014 - March 2015</i>
KIT: Measurement and Control Systems Interim Lecturer and Teaching Assistant (600 students)	<i>April 2009 - March 2010</i>
KIT: Measurement Systems: Practical Courses Teaching Assistant (groups of 6 students)	<i>September 2008 - March 2010</i>

STUDENT SUPERVISION

Katrin Renz, Ph.D. Student Few-shot learning for Self-Driving	<i>May 2021 - now</i>
Joo Ho Lee, PostDoc Learning Physically Accurate Room-Scale Reconstructions	<i>August 2020 - now</i>
Axel Sauer, Ph.D. Student Learning Causal Representations for Self-Driving	<i>April 2020 - now</i>
Christian Reiser, Ph.D. Student Meta Learning for 3D Geometry and Material Estimation	<i>April 2020 - now</i>
Fabio Tosi, Ph.D. Intern (University of Bologna) Efficient, Accurate and High-Resolution Stereo Matching	<i>April 2020 - November 2020</i>
Kashyap Chitta, Ph.D. Student Interpretable Representations for End-to-End Self-Driving	<i>September 2019 - now</i>
Songyou Peng, Ph.D. Student (ETH Zürich) Implicit Representations for 3D Reconstruction	<i>September 2019 - now</i>

Xu Chen, Ph.D. Student (ETH Zürich) Photorealistic Human Representations	<i>May 2019 - now</i>
Katja Schwarz, Ph.D. Student 3D Controllable Image Synthesis	<i>July 2019 - now</i>
Michael Niemeyer, Ph.D. Student Continuous Representations for Shape and Motion	<i>October 2018 - now</i>
Michael Oechsle, Ph.D. Student (ETAS) Deep Generative Texture Synthesis	<i>November 2017 - now</i>
Carolin Schmitt, Ph.D. Student Learning Models for inferring Geometry, Materials and Light from RGB-D Videos	<i>July 2017 - now</i>
Despoina Paschalidou, Ph.D. Student Learning Deep Models with Primitive-Based Representations	<i>April 2017 - now</i>
Yiyi Liao, Ph.D. Intern Deep Layered Models for Semantic 3D to 2D Label Transfer in Dynamic Urban Scenes	<i>October 2016 - now</i>
Aseem Behl, Ph.D. Student Deep Semantic Scene Flow	<i>August 2016 - August 2020</i>
Benjamin Coors, Ph.D. Student (Robert Bosch GmbH) Invariances in Deep Learning	<i>September 2016 - August 2019</i>
Lars Mescheder, Ph.D. Student Accurate Reconstruction of Lights, Materials and 3D Geometry from RGB, Depth and Motion	<i>August 2016 - January 2020</i>
Gernot Riegler, Ph.D. Intern (TU Graz) Deep Models for 3D Classification, Pose Estimation, Segmentation and Reconstruction	<i>July 2016 - December 2016</i>
Joël Janai, Ph.D. Student Learning Optical Flow from Slow Motion Videos	<i>July 2015 - December 2019</i>
Fatma Güney, Ph.D. Student Semantic 3D Scene Understanding from Videos	<i>August 2013 - October 2017</i>
Jun Xie, Ph.D. Intern (University of Washington) Large-scale Instance-Level Semantic Annotation	<i>June 2014 - December 2014</i>
Chen Zhou, Ph.D. Intern (Peking University) 3D Reconstruction from Fisheye Video Sequences	<i>May 2014 - November 2014</i>
Moritz Menze, Ph.D. Intern (University of Hannover) 3D Scene Flow Estimation	<i>March 2014 - August 2014</i>

AWARDS AND SCHOLARSHIPS

Mark Everingham Price International Conference on Computer Vision, Virtual	<i>October 2021</i>
Facebook Research Award Facebook Reality Labs	<i>October 2021</i>
Teaching Award for Lecture “Computer Vision” Department of Computer Science, University of Tübingen	<i>July 2021</i>
CVPR Best Paper Award International Conference on Computer Vision and Pattern Recognition, Virtual	<i>June 2021</i>
AI2000 - 100 Most Influential Scholars in Computer Vision Tsinghua AMiner	<i>April 2020+2021</i>

Junge Elite - Top 40 unter 40 Capital Business Journal, Gruner + Jahr, Germany	<i>September 2019</i>
ERC Starting Grant, €1,5 Mio European Research Council (ERC)	<i>August 2019</i>
CVPR Best Paper Finalist (2 Papers) International Conference on Computer Vision and Pattern Recognition, Long Beach, USA	<i>June 2019</i>
IEEE PAMI Young Researcher Award International Conference on Computer Vision and Pattern Recognition, Salt Lake City, USA	<i>June 2018</i>
Outstanding Reviewer Award Neural Information and Processing Systems, Long Beach, USA	<i>December 2017</i>
3DV Best Student Paper Award International Conference on 3D Vision, Qingdao, China	<i>October 2017</i>
German Pattern Recognition Prize, €5,000 German Conference on Pattern Recognition, Basel, Switzerland	<i>September 2017</i>
Heinz Maier-Leibnitz Prize, €20,000 Deutsche Forschungsgemeinschaft (DFG)	<i>May 2017</i>
Outstanding Reviewer Award International Conference on Computer Vision and Pattern Recognition, Las Vegas, USA	<i>June 2016</i>
3DV Best Paper Award, €600 International Conference on 3D Vision, Lyon, France	<i>October 2015</i>
GCPR Best Paper Award, €1,500 German Conference on Pattern Recognition, Aachen, Germany	<i>October 2015</i>
Associate Member of the Max Planck ETH Center for Learning Systems MPI for Intelligent Systems in Tübingen and ETH Zürich	<i>2015-2016</i>
Elected Ombudsperson at the Intelligent Systems Institute Tübingen Max Planck Institute for Intelligent Systems, Tübingen, Germany	<i>2015-2018</i>
KIT Doctoral Award (Best Ph.D. Thesis), €2,000 Karlsruhe Institute of Technology (KIT), Karlsruhe, Germany	<i>February 2015</i>
Ernst-Schoemperlen Prize (Research in Mobility Systems), €5,000 Karlsruhe Institute of Technology (KIT), Karlsruhe, Germany	<i>November 2014</i>
CVPR Best Paper Runner Up Award, \$3,000 International Conference on Computer Vision and Pattern Recognition, Portland, USA	<i>June 2013</i>
1st place in the GCDC competition with Team AnnieWAY Grand Cooperative Driving Challenge (GCDC), Helmond, Netherlands	<i>May 2011</i>
IV Best Dissertation Proposal Award Intelligent Vehicles Symposium, San Diego, USA	<i>June 2010</i>
DAAD and MIT scholarships, €10,000 Massachusetts Institute of Technology	<i>February - July 2008</i>
ERASMUS scholarship, €1,000 Ecole Polytechnique Fédérale de Lausanne	<i>September 2005 - February 2006</i>
Award of the German Physical Association	<i>June 2002</i>
Ferry Porsche Award	<i>June 2002</i>

INVITED TALKS AND KEYNOTES

Naver Labs Workshop: Virtual invited talk	25.11.2021
Qualcomm-UvA Deep Vision Seminar: Virtual invited talk	06.10.2021
KAIST Seminar: Virtual invited talk	27.09.2021
Korean Conference on Computer Vision: Keynote talk	09.08.2021
Toyota Research Institute Seminar: Virtual invited talk	21.07.2021
3D Geometry and Vision Seminar: Virtual invited talk	21.04.2021
Stanford SCIEN Seminar: Virtual invited talk	14.04.2021
AIDA AI Excellence Series: Virtual invited talk	21.03.2021
UC San Diego Vision Seminar: Virtual invited talk	15.01.2021
WACV Workshop on Autonomous Driving: Virtual invited talk	09.01.2021
IJCAI Workshop on 3D Vision: Virtual invited talk	08.01.2021
University of Hong Kong Seminar: Virtual invited talk	07.01.2021
Carnegie Mellon University VASC Seminar: Virtual invited talk	31.08.2020
ECCV Workshops: 3 invited keynote talks (virtual)	08.2020
CVPR Workshops: 8 invited keynote talks (virtual)	06.2020
Oxford Vision Group Seminar: Oxford, UK	27.04.2020
International Computer Vision Summer School: Sicily, Italy	07.07.2019
Amazon: Seattle, USA	18.06.2019
CVPR Workshop on Uncertainty and Robustness: Long Beach, USA	17.06.2019
CVPR Workshop on Autonomous Driving: Long Beach, USA	17.06.2019
CVPR Robotic Vision Workshop: Long Beach, USA	17.06.2019
CVPR CARLA Workshop: Long Beach, USA	16.06.2019
Autonomous University of Barcelona: Barcelona, Spain	21.05.2019
Chalmers AI Research Center Inauguration: Gothenburg, Sweden	05.03.2019
International Max Planck Research School: Tübingen, Germany	31.01.2019
ETH Zürich, Institute of Neuroinformatics: Zürich, Switzerland	25.10.2018
ETH Zürich, Institute of Neuroinformatics: Zürich, Switzerland	25.10.2018
Continental Round Table: Lindau, Germany	20.09.2018
ECCV Vision-based Navigation for Autonomous Driving: Munich, Germany	09.09.2018
ECCV Joint COCO and Mapillary Workshop: Munich, Germany	09.09.2018
ECCV Workshop on Autonomous Navigation: Munich, Germany	08.09.2018
Intel Network on Intelligent Systems: Munich, Germany	05.09.2018
Bosch Center for Artificial Intelligence: Renning, Germany	24.07.2018
IMPRS Summer School: Bad Überkingen, Germany	22.06.2018
CVPR Workshop on Visual Odometry: Salt Lake City, USA	22.06.2018
CVPR Workshop on Vision with Biased or Scarce Data: Salt Lake City, USA	22.06.2018
CVPR Workshop on Robotic Vision: Salt Lake City, USA	22.06.2018
CVPR Workshop on Autonomous Driving: Salt Lake City, USA	18.06.2018
CVPR Robust Vision Challenge: Salt Lake City, USA	18.06.2018
Baidu ApolloScape Workshop: Beijing, China	23.04.2018
DALI Workshop on Autonomous Driving: Lanzarote, Spain	03.04.2018
IST Austria: Klosterneuburg, Austria	30.11.2017
TU Graz: Graz, Austria	24.11.2017
ICCV Workshop on Learning to See from 3D Data: Venice, Italy	28.10.2017
ICCV Workshop on Dynamic Scene Understanding: Venice, Italy	23.10.2017
Bosch Chassis Control Systems: Leonberg, Germany	19.10.2017
NVIDIA GTC Europe: Munich, Germany	12.10.2017
Microsoft Research Cambridge: Cambridge, England	26.09.2017
GCPR Award Lecture: Basel, Switzerland	12.09.2017
BMVC Tutorial Lecture: London, England	04.09.2017
Intel NIS Network: Munich, Germany	30.08.2017
Disney Research Zürich: Zürich, Switzerland	25.09.2017
Summer School on Cooperative Interacting Automobiles: Schwäb.-Gmünd	09.08.2017
CVPR Workshop on Autonomous Driving: Honolulu, Hawaii, USA	20.07.2017
Summer School on Learning Systems: ETH Zürich, Switzerland	06.07.2017

Robert Bosch GmbH: Bosch CC Leadership Meeting, Budapest, Hungary	<i>10.05.2017</i>
TU München: Computer Vision Group	<i>31.03.2017</i>
University of Maryland: CVPR Area Chair Workshop	<i>27.02.2017</i>
Princeton University: Computer Graphics and Vision Lab	<i>24.02.2017</i>
National University of Singapore: Singapore	<i>25.11.2016</i>
ETH Zürich: Faculty Lunch Seminar	<i>24.10.2016</i>
ECCV Workshop on Multi-target Tracking: Amsterdam, Netherlands	<i>09.10.2016</i>
ETH Zürich: Computer Vision and Geometry Lab	<i>12.05.2016</i>
University Hannover: Ringvorlesung Navigation und Umweltrobotik	<i>11.05.2016</i>
TU Dresden: Computer Vision Lab	<i>22.04.2016</i>
MPI Tübingen: Special Symposium on Intelligent Systems	<i>16.03.2016</i>
Scenes from Video Workshop: Colchagua Valley, Chile	<i>17.12.2015</i>
ICCV Workshop on Autonomous Driving: Santiago, Chile	<i>12.12.2015</i>
Google Research: Mountain View, USA	<i>25.11.2015</i>
Robert Bosch GmbH: Leonberg, Germany	<i>23.11.2015</i>
Dagstuhl Seminar: Dagstuhl, Germany	<i>09.11.2015</i>
Daimler AG: Böblingen, Germany	<i>27.08.2015</i>
RSS Workshop on SLAM: Rome, Italy	<i>17.07.2015</i>
RWTH Aachen: GCPR PC Meeting	<i>09.07.2015</i>
CVPR Workshop on Performance Metrics: Boston, USA	<i>11.06.2015</i>
Karlsruhe Institute of Technology: Department of Economics and Management	<i>30.04.2015</i>
MPI Tübingen: ETH/MPI Vision Workshop	<i>25.11.2014</i>
MPI Stuttgart: Tag der offenen Tür	<i>05.04.2014</i>
ETH Zürich: Photogrammetry and Remote Sensing Lab	<i>27.03.2014</i>
Robert Bosch GmbH: Fahrzeugsicherheits- und Assistenzsysteme, Stuttgart	<i>18.06.2013</i>
Karlsruhe Institute of Technology: Ringvorlesung des Graduiertenkolleg 1194	<i>03.05.2013</i>
University of Illinois at Urbana-Champaign: Department of Computer Science	<i>30.11.2012</i>
New York University: Vision, Learning and Graphics Group	<i>29.11.2012</i>
Carnegie Mellon University: The Robotics Institute	<i>28.11.2012</i>
MIT: Computer Science and Artificial Intelligence Laboratory	<i>27.11.2012</i>
MPI Tübingen: Perceiving Systems Department	<i>05.11.2012</i>
TU Darmstadt: Interactive Graphics Systems Group	<i>01.11.2012</i>
RWTH Aachen: UMIC Research Centre Computer Vision Group	<i>26.10.2012</i>
ETH Zürich: Computer Vision and Geometry Lab	<i>22.10.2012</i>
University of Oxford: Robotics Research Group	<i>24.09.2012</i>
CVPR Workshop on Point Cloud Processing: Providence, USA	<i>16.06.2012</i>
Toyota Technological Institute at Chicago	<i>19.07.2011</i>
Robert Bosch GmbH: Computer Vision Systems, Hildesheim	<i>14.01.2011</i>
MPI Saarbrücken: Computer Vision and Multimodal Computing Department	<i>06.12.2010</i>
ETH Zürich: Computer Vision and Geometry Lab	<i>27.05.2010</i>

PROFESSIONAL SERVICE / COMMISSIONS OF TRUST

ASSOCIATE EDITOR: PAMI 2016-now, IJCV 2017-now

PROGRAM CHAIR: DAGM GCPR 2020, CVPR 2023

AREA CHAIR: ECCV 2016, CVPR 2017, CVPR 2018, ECCV, 2018, ICCV 2019, CVPR 2020

PROGRAM COMMITTEE: NIPS 2012-now, ACCV 2012-now, IV 2010-now, ICCV 2013-now, ECCV 2014-now, CVPR 2013-now, GCPR 2015-now

REVIEWER: NIPS, CVPR, ECCV, ICCV, GCPR, ACCV, PAMI, IJCV, IJRR, ICRA, IROS, IV, ITSC, TITS

MEMBER of Minister Bauer's delegation to Paris regarding French-German AI partnership, 2018

FELLOW of the European Laboratory of Learning and Intelligent Systems (ELLIS), 2019-now
BOARD of the European Laboratory of Learning and Intelligent Systems (ELLIS), 2019-now
COORDINATOR of the ELLIS PhD program and ELLIS board member, 2019-now
STEERING BOARD of the Max Planck ETH Center for Learning Systems, 2018-2021
DEPUTY HEAD of the dept. of computer science at the University of Tübingen, 2020-now

ORGANIZATION

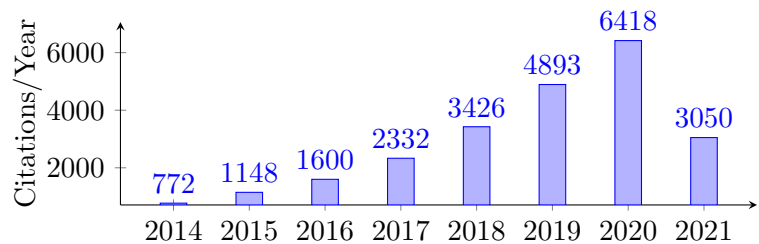
- Conference on Computer Vision and Pattern Recognition (CVPR) 2023** *June 2023*
Program Chair jointly with Vladlen Koltun, Ross Girshick and Svetlana Lazebnik
- CVPR 2021: Robust Video Scene Understanding** *June 2021*
Jointly with Jonathon Luiten, Bastian Leibe, Laura Leal-Taixé, Fisher Yu and Deva Ramanan
- CVPR 2021: Workshop on Autonomous Driving** *June 2021*
Jointly with Andrea Vedaldi, Dragomir Anguelov, Fisher Yu, Luc Van Gool and John Leonard
- German Conference on Pattern Recognition (GCPR) 2020** *September 2020*
General Chair and Program Chair
- ECCV 2020: Robust Vision Challenge** *August 2020*
Jointly with Oliver Zendel, Daniel Scharstein, Vladlen Koltun and others
- CVPR 2020: Workshop on Benchmarking Multi-Target Tracking** *June 2020*
Jointly with Bastian Leibe, Laura Leal-Taixe, Aljosa Osep and Paul Voigtländer
- CVPR 2020: Workshop on Scalability in Autonomous Driving** *June 2020*
Jointly with Yuning Chai, Henrik Kretzschmar and Dragomir Anguelov
- CVSS 2019: Computational Vision Summer School** *July 2019*
Jointly with Hendrikje Nienborg, Siyu Tang and Bei Xiao
- ECCV 2018: Workshop on Autonomous Driving** *September 2018*
Jointly with Peng Wang, Ruigang Yang, Hongdong Li and Alan Yuille
- CVPR 2018: Workshop on Autonomous Driving** *June 2018*
Jointly with Ruigang Yang, Jose Alvarez and Fisher Yu
- CVPR 2018: Robust Vision Challenge** *June 2018*
Jointly with C. Rother, M. Niessner, M. Pollefeys, D. Scharstein and T. Sattler
- DALI 2018: Workshop on Autonomous Driving** *June 2018*
Jointly with Andrew Blake
- ECCV 2014: Reconstruction Meets Recognition Challenge** *September 2014*
Jointly with R. Urtasun, R. Fergus, D. Hoiem, A. Torralba, P. Lenz, N. Silberman, J. Xiao, S. Fidler
- ACCV 2014: Intelligent Vehicle With Vision Technology** *September 2014*
Jointly with Xue Mei, Michael James, Yi-Ping Hung, Fatih Porikli and Danil Prokhorov
- IV 2014: Workshop on Benchmarking Lane Detection Algorithms** *June 2014*
Jointly with Chunzhao Guo, José M. Álvarez and Jannick Fritsch
- ICCV 2013: Reconstruction Meets Recognition Challenge** *December 2013*
Jointly with R. Urtasun, R. Fergus, D. Hoiem, A. Torralba, P. Lenz, N. Silberman, J. Xiao, S. Fidler
- GCPR 2013: Special Session on Robust Optical Flow** *September 2013*
Jointly with Andrés Bruhns, Uwe Franke and Daniel Kondermann

PUBLICATIONS

SCIENTIFIC IMPACT

CITATION INDICES

Citations: 25004
h-Index: 54
i10-Index: 90
Source: scholar.google.com
Accessed: 21.06.2021



PUBLICATIONS

All publications are peer-reviewed conference or journal publications and top tier in the respective field (computer vision, machine learning, robotics, intelligent vehicles). ICML, NIPS, ICCV, ECCV and CVPR are highly competitive with acceptance rates of less than 30%. CVPR is the most highly cited IEEE conference with the highest impact in Engineering and Computer Science. CVPR, ECCV, ICCV and NeurIPS are the four most impactful conferences in all of computer science¹. The **most important publications** as well as **award papers** are marked with an asterisk.

JOURNAL PAPERS

Lina Liu, Yiyi Liao, Yue Wang, Andreas Geiger, and Yong Liu. Learning steering kernels for guided depth completion. *IEEE Trans. on Image Processing (TIP)*, 30:2850–2861, 2021.

Jonathon Luiten, Aljosa Osep, Patrick Dendorfer, Philip Torr, Andreas Geiger, Laura Leal-Taixe, and Bastian Leibe. Hota: A higher order metric for evaluating multi-object tracking. *International Journal of Computer Vision (IJCV)*, 2020.

Peidong Liu, Joel Janai, Marc Pollefeys, Torsten Sattler, and Andreas Geiger. Self-supervised linear motion deblurring. *IEEE Robotics and Automation Letters (RA-L)*, 5(2):2475–2482, 2020.

David Stutz and Andreas Geiger. Learning 3d shape completion under weak supervision. In *International Journal of Computer Vision (IJCV)*, 2018.

Hassan Alhajja, Siva Mustikovela, Lars Mescheder, Andreas Geiger, and Carsten Rother. Augmented reality meets computer vision: Efficient data generation for urban driving scenes. *International Journal of Computer Vision (IJCV)*, 126(9):961–972, 2018.

Moritz Menze, Christian Heipke, and Andreas Geiger. Object scene flow. *ISPRS Journal of Photogrammetry and Remote Sensing (JPRS)*, 140:60–76, 2018.

Joel Janai, Fatma Güney, Aseem Behl, and Andreas Geiger. Computer vision for autonomous vehicles: Problems, datasets and state-of-the-art. *arXiv.org*, 1704.05519, 2017.

* Marcus A. Brubaker, Andreas Geiger, and Raquel Urtasun. Map-based probabilistic visual self-localization. *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 38(4):652–665, 2016.

* Andreas Geiger, Martin Lauer, Christian Wojek, Christoph Stiller, and Raquel Urtasun. 3D traffic scene understanding from movable platforms. *IEEE Trans. on Pattern Analysis and Machine Intelligence (PAMI)*, 36(5):1012–1025, 2014.

¹<http://www.guide2research.com/topconf/>

Andreas Geiger, Philip Lenz, Christoph Stiller, and Raquel Urtasun. Vision meets robotics: The KITTI dataset. *International Journal of Robotics Research (IJRR)*, 32(11):1231–1237, 2013.

Andreas Geiger, Martin Lauer, Frank Moosmann, Benjamin Ranft, Holger Rapp, Christoph Stiller, and Julius Ziegler. Team annieway’s entry to the grand cooperative driving challenge 2011. *IEEE Trans. on Intelligent Transportation Systems (TITS)*, 13(3):1008–1017, September 2012.

CONFERENCE PAPERS

Despoina Paschalidou, Angelos Katharopoulos, Andreas Geiger, and Sanja Fidler. Neural parts: Learning expressive 3d shape abstractions with invertible neural networks. In *Proc. IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*, 2021.

Shaofei Wang, Andreas Geiger, and Siyu Tang. Locally aware piecewise transformation fields for 3d human mesh registration. In *Proc. IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*, 2021.

Fabio Tosi, Yiyi Liao, Carolin Schmitt, and Andreas Geiger. Smd-nets: Stereo mixture density networks. In *Proc. IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*, 2021.

Aditya Prakash, Kashyap Chitta, and Andreas Geiger. Multi-modal fusion transformer for end-to-end autonomous driving. In *Proc. IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*, 2021.

* Michael Niemeyer and Andreas Geiger. Giraffe: Representing scenes as compositional generative neural feature fields. In *Proc. IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*, 2021.

Axel Sauer and Andreas Geiger. Counterfactual generative networks. In *Proc. of the International Conf. on Learning Representations (ICLR)*, 2021.

Katja Schwarz, Yiyi Liao, Michael Niemeyer, and Andreas Geiger. Graf: Generative radiance fields for 3d-aware image synthesis. In *Advances in Neural Information Processing Systems (NeurIPS)*, 2020.

Michael Oechsle, Michael Niemeyer, Christian Reiser, Lars Mescheder, Thilo Strauss, and Andreas Geiger. Learning implicit surface light fields. In *Proc. of the International Conf. on 3D Vision (3DV)*, 2020.

Hassan Alhaija, Siva Mustikovela, Varun Jampani, Justus Thies, Matthias Niessner, Andreas Geiger, and Carsten Rother. Intrinsic autoencoders for joint neural rendering and intrinsic image decomposition. In *Proc. of the International Conf. on 3D Vision (3DV)*, 2020.

Aseem Behl, Kashyap Chitta, Aditya Prakash, Eshed Ohn-Bar, and Andreas Geiger. Label efficient visual abstractions for autonomous driving. In *Proc. IEEE International Conf. on Intelligent Robots and Systems (IROS)*, 2020.

Xu Chen, Zijian Dong, Jie Song, Andreas Geiger, and Otmar Hilliges. Category level object pose estimation via neural analysis-by-synthesis. In *Proc. of the European Conf. on Computer Vision (ECCV)*, 2020.

Songyou Peng, Michael Niemeyer, Lars Mescheder, Marc Pollefeys, and Andreas Geiger. Convolutional occupancy networks. In *Proc. of the European Conf. on Computer Vision (ECCV)*, 2020.

Eshed Ohn-Bar, Aditya Prakash, Aseem Behl, Kashyap Chitta, and Andreas Geiger. Learning sit-

- uational driving. In *Proc. IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*, 2020.
- Carolin Schmitt, Simon Donne, Gernot Riegler, Vladlen Koltun, and Andreas Geiger. On joint estimation of pose, geometry and svbrdf from a handheld scanner. In *Proc. IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*, 2020.
- Aditya Prakash, Aseem Behl, Eshed Ohn-Bar, Kashyap Chitta, and Andreas Geiger. Exploring data aggregation in policy learning for vision-based urban autonomous driving. In *Proc. IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*, 2020.
- Despoina Paschalidou, Luc van Gool, and Andreas Geiger. Learning unsupervised hierarchical part decomposition of 3d objects from a single rgb image. In *Proc. IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*, 2020.
- Michael Niemeyer, Lars Mescheder, Michael Oechsle, and Andreas Geiger. Differentiable volumetric rendering: Learning implicit 3d representations without 3d supervision. In *Proc. IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*, 2020.
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