Curriculum Vitae
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Maxim Tatarchenko

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EDUCATION

Albert-Ludwigs-Universität Freiburg *Jan. 2016 - Jul. 2020*
PhD (summa cum laude) in Computer Science
Computer Vision Lab, advisor Prof. Dr.-Ing. Thomas Brox
Final grade 0.0, with distinction

Albert-Ludwigs-Universität Freiburg *Oct. 2012 - Mar. 2013*
Master in Computer Science *Apr. 2014 - Dec. 2015*
Final grade 1.0, with distinction

"MATI" - K. I. Tsiolkovsky Russian State Technological University *Sep. 2007 - Jun. 2011*
Bachelor in Applied Mathematics and Informatics
Final grade 4,8, with distinction

PROFESSIONAL EXPERIENCE

Bosch Center for AI, Renningen, Germany *May 2020 - now*
Research Scientist
Generative and Explainable Deep Learning Group

Albert-Ludwigs-Universität Freiburg, Germany *Jan. 2016 - Feb. 2020*
Research Assistant
Computer Vision Lab

Intel Labs, Santa Clara, USA *May 2017 - Nov. 2017*
Intern
Intelligent Systems Lab, advisor Dr. Vladlen Koltun

Albert-Ludwigs-Universität Freiburg, Germany *Jun. 2014 - Dec. 2015*
Student Research Assistant
Autonomous Intelligent Systems Lab

GPSCOM, Moscow, Russia *Dec. 2011 - Apr. 2014*
Software Engineer

Crechet corp., Moscow, Russia *Jun. 2011 - Dec. 2011*
Software Developer

PUBLICATIONS

Google scholar citations: **862**
Not including publications in Russian prior to 2015.

Referred papers

1. S. Mittal, M. Tatarchenko and T. Brox. "Semi-supervised semantic segmentation with high- and low-level consistency." In TPAMI, 2020
2. O. Mees, M. Tatarchenko, T. Brox and W. Burgard. "Self-supervised 3d shape and viewpoint estimation from single images." In IROS, 2019
3. M. Tatarchenko*, S. R. Richter*, R. Ranftl, Z. Li, V. Koltun, and T. Brox. "What do single-view 3d reconstruction networks learn?" In CVPR, 2019
4. A. Böhm, M. Tatarchenko, and T. Falk. "ISOO^V2_DL - semantic instance segmentation of touching and overlapping objects." In ISBI, 2019
5. M. Tatarchenko*, J. Park*, V. Koltun, and Q.-Y. Zhou. "Tangent convolutions for dense prediction in 3d." In CVPR, 2018 **(Selected for spotlight oral)**
6. A. Dosovitskiy, J. T. Springenberg, M. Tatarchenko, and T. Brox. "Learning to generate chairs, tables and cars with convolutional networks." TPAMI, Apr 2017
7. M. Tatarchenko, A. Dosovitskiy, and T. Brox. "Octree generating networks: Efficient convolutional architectures for high-resolution 3d outputs." In ICCV, 2017
8. M. Tatarchenko, A. Dosovitskiy, and T. Brox. "Multi-view 3d models from single images with a convolutional network." In ECCV, 2016 **(Selected for spotlight oral)**
9. B. Frank, M. Ruhnke, M. Tatarchenko, and W. Burgard. "3d-reconstruction of indoor environments from human activity." In ICRA, 2015

Preprints

1. S. Mittal, M. Tatarchenko, Özgün Çiçek and T. Brox. "Parting with Illusions about Deep Active Learning." In arXiv:1912.05361, 2019

PROFESSIONAL SERVICES

Reviewer for IROS'18, ICCV'18, CVPR'18, CVPR'19 (outstanding reviewer), TPAMI'19, CVPR'20, IJCV'20

TECHNICAL SKILLS

Python, C++, TensorFlow, PyTorch

AWARDS

VDI-Förderpreis   *2016*
Sponsorship award of the Association of German Engineers
Awarded for the master's thesis

MEDIA COVERAGE

3sat: Scobel   *2016*
TV program about AI
Mentioned the work "Multi-view 3D models from single images with CNNs"

PATENTS

Tangent convolutions for 3D data   *2019*
US patent
J. Park, V. Koltun, M. Tatarchenko and Q.-Y. Zhou

ADDITIONAL TRAINING

Machine Learning Summer School   *2016*
Cadiz, Spain

LANGUAGE SKILLS

Russian (mother tongue), **English** (advanced), **German** (advanced)

TEACHING EXPERIENCE

Thesis supervision

Olesya Tsapenko   *Mar. 2019 - Sep. 2019*
Point cloud colorization using sparse convolutions
Master's thesis

Jan Bechtold   *Jun. 2018 - Dec. 2018*
3D object detection using tangent convolutions
Master's thesis

Lukas Wiens   *Dec. 2017 - Mar. 2018*
Implementierung der Octree Generating Networks Deep
Learning Architektur in Tensorflow
Bachelor's thesis

Sudhanshu Mittal   *Mar. 2017 - Nov. 2017*
Semi-supervised learning for real-world object recognition using
adversarial autoencoders
Master's thesis

Vladislav Tananaev   *Mar. 2017 - Jun. 2017*
Semantic segmentation in point clouds with deep networks
Master's thesis

Courses

Optimization (in German)   *WS 2019 - 2020*
Lecture
Teaching assistant

Statistical pattern recognition   *2018 - 2019*
Lecture, selected classes
Lecturer

Computer vision   *2018*
Lecture, selected classes
Lecturer

Deep learning for biomedical image analysis   *2016 - 2019*
Seminar
Supervisor

Current works in computer vision   *2016 - 2019*
Seminar
Supervisor

Deep learning   *SS 2016*
Lab course
Co-organizer and supervisor

Parking space detection   *SS 2015*
Lab course
Co-organizer

SELECTED TALKS

Not including internal lab talks,
not including talks prior to 2016.

3D deep learning: methods and applications   *Dec. 2019*
5th Christmas Colloquium on Computer Vision, Yandex, Moscow

What do single-view 3d reconstruction networks learn?   *Jul. 2019*
Dynamic Vision workshop, CVPR, Long Beach

Problems of single-image 3d reconstruction   *Sep. 2018*
Intel Network on Intelligent Systems Workshop, Munich

Deep learning in computer vision and its applications to 3D data   *Jun. 2018*
Optics Colloquium, University of Freiburg

Multi-view 3D models from single images with a convolutional network   *Dec. 2016*
2nd Christmas Colloquium on Computer Vision, Skoltech, Moscow

Multi-view 3D models from single images with a convolutional network *Oct. 2016*
ECCV, Amsterdam

Graduation speech *Jul. 2016*
Graduation ceremony, University of Freiburg

VOLUNTEERING ACTIVITIES

Youth hackathon Freiburg *Nov. 2019*
Mentor