

# Sanja Fidler

## *Curriculum Vitae*

### Work address:

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## Position

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Associate Professor at University of Toronto  
Vice President of AI Research at NVIDIA  
Vector Institute (co-founder)

## Research Interests

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Computer Vision, Machine Learning, 3d deep learning, metaverse applications, multimodal representations, human-in-the-loop annotation

## Degrees

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- 2010*                    **Ph.D. in Computer Science**  
Department of Computer and Information Science, University of Ljubljana  
Thesis title: *Recognizing visual object categories with subspace methods and a learned hierarchical shape vocabulary*
- 2002*                    **B.S. in Applied Mathematics**  
Department of Mathematics and Physics, University of Ljubljana  
Thesis title: *Independent Component Analysis*

## Employment

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- Jul 2020* –            **Associate Professor**  
University of Toronto
- March 2022* –        **Vice President of AI Research**  
NVIDIA
- July 2021 – Feb 2022* **Sr. Director of AI**  
NVIDIA

*May 2018 – June 2021* **Director of AI**  
NVIDIA

*Jul 2016 – Jun 2020* **Assistant Professor (tenure-track)**  
University of Toronto

*Jan 2014 – Jun 2016* **Assistant Professor (non tenure-track)**  
University of Toronto

*Jul 2012 – Jan 2014* **Research Assistant Professor**  
Toyota Technological Institute at Chicago

*Feb 2011 – Jun 2012* **Postdoctoral Fellow**  
University of Toronto  
Supervisor: Prof. Sven Dickinson

*Jan – Aug 2010* **Visiting Scientist**  
UC Berkeley and ICSI  
Supervisor: Prof. Trevor Darrell

*2008 – 2010* **Research Assistant (Graduate)**  
Department of Computer and Information science, University of Ljubljana  
Supervisor: Prof. Aleš Leonardis

*2003 – 2007* **Teaching Assistant (full time)**  
Department of Computer and Information Science, University of Ljubljana

*2002* **Research Assistant (Undergraduate)**  
Department of Electrical Engineering, University of Ljubljana  
Project: Biomedical image analysis  
Supervisor: Prof. Franjo Pernuš

## Awards

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*2023* **The AI 100 2023: The top people in artificial intelligence**  
The Business Insider

*2023* **Canadian Chair of AI (CCAI)**  
Awarded by CIFAR

*2021* **Innovation Award**  
Awarded by University of Toronto

*2020* **Connaught Innovation Award**  
Awarded by University of Toronto

*2019* **Early Researcher Award**

*2018* **Canada CIFAR AI Chair**  
Awarded by CIFAR

*2018* **Connaught New Researcher Award**  
Awarded by University of Toronto

*2017* **Best paper honorable mention at CVPR'17:**  
Annotating object instances with a polygon-RNN  
Lluís Castrejon, Kaustav Kundu, Raquel Urtasun, **Sanja Fidler**

- 2016 **Amazon Academic Research Award**  
Awarded by Amazon
- 2016 **NVIDIA Pioneers of AI Award**  
Awarded by NVIDIA
- 2016 **Facebook Faculty Award**  
Awarded by Facebook
- 2015 **Teaching award**  
Awarded by CSSU at University of Toronto
- 2015 **Best reviewer award**  
Computer Vision and Pattern Recognition (CVPR)
- 2012 **Best reviewer award**  
Computer Vision and Pattern Recognition (CVPR)
- 2012 **Best reviewer award**  
European Conference on Computer Vision (ECCV)
- 2008 **Best reviewer award**  
European Conference on Computer Vision (ECCV)
- 2007 **Best teaching assistant award**  
Department of Computer and Information Science, University of Ljubljana
- 2007 **Best Ph.D. student presentation**  
Student competition at EU Cognition project meeting  
[http://www.vernon.eu/euCognition/six\\_monthly\\_meeting\\_2.htm](http://www.vernon.eu/euCognition/six_monthly_meeting_2.htm)  
Presentation title: *Learning Hierarchical Representations of Object Categories*
- 2006 **Award for the postgraduate studies**  
Department of Computer and Information Science, University of Ljubljana
- 2003 **Best paper award**  
Austrian Association for Pattern Recognition (OAGM/AAPR) conference
- 2002 **Award for the Diploma thesis**  
Department of Mathematics and Physics, University of Ljubljana

## Professional Service

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### Co-founded

The Vector Institute, <http://vectorinstitute.ai/>

### Program Chair

International Conference on 3D Vision: 2016

### Area Chair

#### Computer Vision:

IEEE Computer Vision and Pattern Recognition (CVPR): 2016, 2017, 2018, 2021, 2022

European Conference in Computer Vision (ECCV): 2018

International Conference on Computer Vision (ICCV): 2017

Asian Conference on Computer Vision (ACCV): 2016

**Machine Learning:**

Neural Information Processing Systems (NIPS): 2017, 2018, 2019

International Conference on Learning Representations (ICLR): 2017, 2018, 2020

**Natural Language Processing:**

Empirical Methods on Natural Language Processing (EMNLP): 2016, 2017

**Artificial Intelligence:**

Association for the Advancement of Artificial Intelligence (AAAI): 2018

**Chair**

Workshop co-chair for CVPR'19

Tutorial co-chair for CVPR'16

Publication co-chair for ICCV 2015

Publication co-chair for CVPR 2015

Publication co-chair for CVPR 2014

Publication co-chair for CVPR 2013

Presentations chair for CVPR 2010

Multimedia chair for International Mathematical Olympiad 2006

**Committees (at UofT)**

Grad Affairs Committee (2018/2019)

Grad Visit Day (2016/2017)

Grad Visit Day (2015/2016)

DCS Grad Recruiting Committee (2014)

Grad Research Skills Committee (2014, 2015)

DCS Professional Master's Admissions Committee (2014)

DCS Undergraduate Summer Research Program (2014, 2015)

**Journal Reviewing**

IEEE Transactions on Pattern Analysis and Machine Intelligence (IEEE TPAMI)

International Journal of Computer Vision (IJCV)

Computer Vision and Image Understanding (CVIU)

Robotics and Autonomous Systems (RAS)

Pattern Recognition (PR)  
Image and Vision Computing (IMAVIS)

### Program Committees

2009 – 2015 IEEE Computer Vision and Pattern Recognition (CVPR)  
2009 – 2015 IEEE International Conference on Computer Vision (ICCV)  
2008 – 2016 European Conference on Computer Vision (ECCV)  
2013 – 2016 Neural Information Processing Systems (NIPS)  
2015 International Conference on Robotics and Automation (ICRA)  
2015 International Conference on Intelligent Robots and Systems (IROS)  
2009 Asian Conference on Computer Vision (ACCV)

### Tutorials and Workshops

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2018 Tutorial on Computer Vision for Robotics and Driving  
a half-day tutorial at CVPR'18, co-organized with Anelia Angelova  
<https://sites.google.com/view/visionroboticsdriving>

2017 Role of Simulation in Computer Vision  
Workshop at ICCV'17  
<https://www.microsoft.com/en-us/research/event/iccv-2017-role-of-simulation-in-computer-vision/>

2017 Geometry Meets Deep Learning  
Workshop at ICCV'17  
<https://sites.google.com/site/deepgeometry2017/>

2017 The Joint Video and Language Understanding Workshop: MovieQA and The Large Scale Movie Description Challenge  
Workshop at ICCV'17  
<https://sites.google.com/site/describingmovies/workshop-at-iccv-17>

2017 PASCAL in Detail Workshop Challenge  
Workshop at CVPR'17  
<https://sites.google.com/view/pasd>

2016 Geometry Meets Deep Learning  
Workshop at ECCV'16  
<https://sites.google.com/site/deepgeometry/>

2015 Tutorial on 3D Indoor Scene Understanding  
a half-day tutorial at CVPR'15, co-organized with Raquel Urtasun  
<http://www.cs.utoronto.ca/~fidler/3DsceneTutorialCVPR15.html>

2014 Reconstruction Meets Recognition Challenge  
Workshop at ECCV'14  
<http://cs.nyu.edu/~silberman/rmrc2014/index.php>

2013 Reconstruction Meets Recognition Challenge  
Workshop at ICCV'13  
<http://ttic.uchicago.edu/~rurtasun/rmrc/index.php>

## Teaching

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2021 CSC 420 Intro to Image Understanding (undergraduate course), Fall session  
<http://www.cs.utoronto.ca/~fidler/teaching/2022/CSC420.html>

2020 CSC 420 Intro to Image Understanding (undergraduate course), Fall session  
<http://www.cs.utoronto.ca/~fidler/teaching/2021/CSC420.html>

2019 CSC 420 Intro to Image Understanding (undergraduate course), Fall session  
<http://www.cs.utoronto.ca/~fidler/teaching/2019Fall/CSC420.html>

2019 CSC 420 Intro to Image Understanding (undergraduate course), Winter session  
<http://www.cs.utoronto.ca/~fidler/teaching/2019/CSC420.html>

2018 CSC 2548 Machine Learning in Computer Vision (graduate course)  
<http://www.cs.utoronto.ca/~fidler/teaching/2018/CSC2548.html>

2018 CSC 420 Intro to Image Understanding (undergraduate course)  
<http://www.cs.utoronto.ca/~fidler/teaching/2018/CSC420.html>

2017 CSC 2539 Visual Recognition with Text (graduate course)  
<http://www.cs.utoronto.ca/~fidler/teaching/2017/CSC2539.html>

2017 CSC 420 Intro to Image Understanding (undergraduate course)  
<http://www.cs.utoronto.ca/~fidler/teaching/2017/CSC420.html>

2016 CSC 2523 Object Modeling and Recognition: Deep Learning in Computer Vision (graduate course)  
<http://www.cs.utoronto.ca/~fidler/teaching/2015/CSC2523.html>

2015 CSC 420 Intro to Image Understanding (undergraduate course)  
<http://www.cs.utoronto.ca/~fidler/teaching/2015/CSC420.html>

2015 CSC 2523 Object Modeling and Recognition: Visual Recognition with Text (graduate course)  
<http://www.cs.utoronto.ca/~fidler/CSC2523.html>

2014 CSC 420 Intro to Image Understanding (undergraduate course)  
<http://www.cs.utoronto.ca/~fidler/CSC420.html>  
(Awarded **Professor of the Year** by Computer Science Student Union at University of Toronto)

2013 2 lectures for the graduate course Computer Vision (taught by Prof. Raquel Urtasun at TTI-C)

### Invited lectures:

Feb 2018 NextAI class on Computer Vision

<i>Jan, May, 2017</i>	NextAI class on Computer Vision
<i>Mar 17, 2017</i>	CogSci Academic Seminar at University of Toronto, Invited lecture on Perceptual machines that see, communicate and reason
<i>Mar 3, 2017</i>	MBA statistics course at business school at University of Toronto, Invited lecture on Machine Learning
<i>Nov 30, 2016</i>	CSC2503: Foundations of Computer Vision (graduate course in CS) at University of Toronto, Invited lecture on Neural Networks
<i>Oct 5, 2016</i>	ESC 301: Engineering Science Robotics Option seminar series (undergraduate course in ECE) at University of Toronto, Invited lecture on Computer Vision

## Supervision

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### Postdoctoral Fellow:

Makarand Tapaswi (Sept 2016 – Nov 2018)

### Phd Students:

Xuanchi Ren	(Sept 2022 – )
Amir Mojtaba Sabour	(Sept 2021 – )
Towaki Takikawa	Co-supervised with Prof. Alec Jacobson (Sept 2020 – )
Cheng Xie	Co-supervised with Prof. Florian Shkurti (Feb 2021 – )
Frank Shen	(Feb 2021 – )
Tianshi Cao	(Feb 2021 – )
Jun Gao	(Jan 2020 – )
Xiaohui Zeng	(Jan 2020 – )
Huan Ling	(Sept 2020 – )
Ziang Wang	(Sept 2019 – )
Jonah Phillion	(Sept 2019 – )
Yuan-Hong Liao	(Sept 2019 – )
Seung Kim	(Jan 2019 – )
Amlan Kar	(Sept 2017 – )
David Acuna	(Sept 2018 – )
Wenzheng Chen	Co-supervised with Prof. Kyros Kutulakos (Sept 2017 – )

Maria Shugrina	Co-supervised with Prof. Karan Singh (Sept 2017 – Oct 2020)
Tingwu Wang	Co-supervised with Prof. Jimmy Ba (Sept 2016 – March 2021)
Hang Chu	Co-supervised with Prof. Raquel Urtasun (Sept 2016 – Feb 2020)
Kaustav Kundu	Co-supervised with Prof. Raquel Urtasun (Sept 2013 – ), now at Amazon
Tom Sie Ho Lee	Co-supervised with Prof. Sven Dickinson Graduated in 2016

**Msc Students:**

Shirley Wang	(Sept 2022 – )
Jeevan Devaranjan	(Sept 2021 – Jan 2023)
Tianxing Li	(Sept 2020 – Apr 2022)
Gary Leung	(Sept 2020 – Apr 2022)
Sasha Doubov	(Sept 2020 – Apr 2022)
Cheng Xie	Co-supervised with Prof. Florian Shkurti (Sept 2019 – Jan 2021)
Xinkai Wei	(Sept 2019 – Jan 2021)
Tianshi Cao	Co-supervised with Prof. Richard Zemel (Sept 2019 – Jan 2021)
Henri Romel	(Sept 2019 – Jan 2022)
Frank Shen	(Sept 2019 – Jan 2021)
Huan Ling	(Sept 2018 – Jan 2020)
Jun Gao	(Sept 2018 – Jan 2020), now PhD student at UofT
Xiaohui Zeng	(Sept 2018 – Jan 2020), now PhD student at UofT
Atef Chaudhury	(Sept 2017 – June 2019), now at Google
Kevin Shen	(Sept 2017 – Jan 2019), now at Layer 6
Chaoqi Wang	(Sept 2017 – Jan 2019), now at Uber ATG
Jiaman Li	(Sept 2017 – Jan 2019), now at USC
Seung Kim	(Sept 2017 – Jan 2019), now PhD student at UofT
Harris Chan	Co-supervised with Prof. Jimmy Ba (Sept 2017 – Jan 2019), now PhD student at UofT
Lluís Castrejon	Co-supervised with Prof. Raquel Urtasun (Sept 2015 – May 2017), now PhD student in University of Montreal

Yukun Zhu	Co-supervised with Prof. Raquel Urtasun and Prof. Ruslan Salakhutdinov (Sept 2014 – Jan 2016), now at Google
Ziyu Zhang	Co-supervised with Prof. Raquel Urtasun (Sept 2014 – May 2016), now at Snap Inc
Ivan Vendrov	Co-supervised with Prof. Raquel Urtasun (Sept 2014 – Jan 2016), now at Google
Abhishek Sen	Co-supervised with Prof. Raquel Urtasun Graduated in 2013, now at Uber ATG

### Undergraduate Students:

Sandeep Routray	3rd year undergraduate at IIT Kanpur Date: June 2020 –
Alex Bie	3rd year undergraduate at UWaterloo (internship) Date: May 2020 – Oct 2020
Siyun Zhao	3rd year undergraduate at UofT (PEY internship) Date: May 2020 – Sept 2020
Alex Zhang	3rd year undergraduate at UWaterloo (internship) Date: Jan 2020 – Nov 2020
Avik Pal	3rd year undergraduate at IIT Kanpur (visiting student) Date: Jan 2020 – Sept 2020
Hiroataka Ishihara	3rd year undergraduate at University of Toronto Date: Nov 2019 – Sept 2020
Ziyue Xu	3rd year undergraduate at University of Toronto Date: May 2020 – Dec 2020
Maciej Kowalski	3rd year visiting student at University of Toronto Date: Nov 2019 – Sept 2020
Jiongtian Guo	3rd year undergraduate at University of Toronto Date: Jan 2020 – April 2020
Chen Cui	3rd year undergraduate at University of Toronto Date: May 2019 – April 2020
Zhaocong (Justin) Yuan	4th year undergraduate at University of Toronto Date: Sept 2019 – May 2020
Jinchen Xuan	3rd year undergraduate at Peking University Date: June 2019 – Nov 2019
Xi Yan	4th year undergraduate at University of Toronto (now a MSc student at Stanford University) Date: June 2019 – Dec 2019
Bowen Chen	4th year undergraduate at University of Toronto Date: May 2019 – Dec 2019

Yinan Zhang	3rd year undergraduate at UWaterloo (internship, now MSc student at Stanford) Date: Jan 2019 – Aug 2019
Towaki Takikawa	3rd year undergraduate at UWaterloo (internship, now PhD student at UofT) Date: Jan 2019 – Apr 2019
Jordi Fortuna	4th year undergraduate at UPC, Spain (visiting student) Date: Sept 2018 – Feb 2019
Eric Guisado	4th year undergraduate at UPC, Spain (visiting student) Date: Sept 2018 – Feb 2019
Xinkai Wei	3rd year undergraduate at UWaterloo (internship, now MSc student at UofT) Date: Sep 2018 – Dec 2018
Yin (Calvin) Liu	3rd year undergraduate at UWaterloo (internship) Date: Sep 2018 – Dec 2018
Zian Wang	3rd year undergraduate at Tsinghua University (now a PhD student at UofT) Date: July 2018 – Nov 2018
Tianshi Cao	4th year undergraduate at University of Toronto (now a MSc student at UofT) Date: July 2018 – May 2019
Huan Ling	4th year undergraduate at University of Toronto (now a PhD student at UofT) Date: Oct 2016 –
Yuhao Zhou	3rd year undergraduate at University of Toronto Date: Jan 2017 –
Ching-Yao Chuang	3rd year undergraduate at National Tsing Hua University (now a PhD student at MIT) Date: Aug 2017 – Dec 2017
Liren Chen	3rd year undergraduate at Tsinghua University (visiting student) Date: June 2017 – Sept 2017
Tiantian (Ailsa) Fang	4th year undergraduate at University of Toronto (now a MSc student at UIUC) Date: Sept 2017 – Dec 2017
Kefan (Arthur) Chen	4th year undergraduate at University of Toronto (now at Google) Date: June 2017 – Capstone project
Daiqing Li	4th year undergraduate at University of Toronto (now a Research Scientist at NVIDIA) Date: June 2017 – May 2018 Capstone project
Wenjia Liu	4th year undergraduate at University of Toronto Date: June 2017 – May 2018 Capstone project
Jienan Yao	4th year undergraduate at University of Toronto Date: Sept 2017 – May 2018 CSC494 (project course)

Zheng Wu	3rd year undergraduate at Shanghai Jiao Tong University (visiting student) Date: May 2017 – Sept 2017
Haokun Liu	3rd year undergraduate at Peking University (now MSc student at NYU) Date: Feb 2017 – June 2017
Xavier Puig Fernandez	4th year undergraduate at UPC, Spain (now a PhD student at MIT) Co-supervised with Prof. Antonio Torralba Date: Jan 2016 –
Olga (Ge Ya) Xu	3rd year undergraduate at UofT USRA'16 Date: June 2016 – Dec 2016
Kevin Kyunghwan Ra	4th year undergraduate at UofT (now a PhD student at McMaster University) Date: Jan 2016 – May 2017
Amlan Kar	3rd year undergraduate at IIT Kanpur, India (now PhD student at UofT) Co-supervised with Prof. Raquel Urtasun Date: June 2016 – Aug 2016
Vasu Sharma	3rd year undergraduate at IIT Kanpur, India (now MSc student at CMU) Co-supervised with Prof. Raquel Urtasun Date: June 2016 – Aug 2016
Erin Grant	4th year undergraduate at UofT (now a PhD student at UC Berkeley) Date: Jan 2016 – May 2016
Seung Kim	4th year undergraduate at UofT (now a MSc student at UofT) Date: Jan 2016 – May 2016
Jurgen Aliaj	2nd year undergraduate at UofT (now a MSc student at UofT) USRA'15, CSC494 (project course) Date: June 2015 – Dec 2015
David Madras	4th year undergraduate at UofT (now a MSc student at UofT) CSC494 (project course) Date: Sept 2015 – Dec 2015
Nick Frosst	4th year undergraduate at UofT (now at Google) CSC494 (project course) Date: Sept 2015 – Dec 2015
Andrew Berneshawi	4th year undergraduate at UofT (now at Amazon) CSC494 (project course): Road estimation with deep networks Date: Jan 2015 – May 2015
Stanislav Ivashkevich	4th year undergraduate at UofT CSC494 (project course): 3D object detection with branch and bound Date: Jan 2015 – April 2015
Taher Jafferjee	4th year undergraduate at UofT CSC494 (project course): Solving jigsaw puzzles Date: Sept 2014 – Dec 2014
Chenxi Liu	4th year undergraduate at Tsinghua University (now a PhD student at John Hopkins) Co-supervised with Prof. Raquel Urtasun. Date: June 2014 – Nov 2014

Yinan Zhao	4th year undergraduate at Tsinghua University (now a PhD student at UT Austin) Co-supervised with Prof. Raquel Urtasun. Date: June 2014 – Dec 2014
Jialiang Wang	4th year undergraduate at UofT (now a PhD student at Harvard University) USRA'14, co-supervised with Prof. Sven Dickinson Date: June 2014 – Aug 2014
Uri Priel	3rd year undergraduate at UofT USRA'14, co-supervised with Prof. Sven Dickinson Date: June 2014 – Aug 2014
Kamyar Ghasemipour	2nd year undergraduate at UofT (now a PhD student at UofT) USRA'14, co-supervised with Prof. Suzanne Stevenson and Prof. Sven Dickinson Date: June 2014 – Aug 2014
Chen Kong	4th year undergraduate at Tsinghua University, (now a PhD student at CMU) Co-supervised with Prof. Raquel Urtasun. Date: June 2013 – March 2014
Ziyu Zhang	4th year undergraduate at Tsinghua University (now a Msc student at UofT) Co-supervised with Prof. Raquel Urtasun Date: August 2013 – June 2014
Meng Ye	4th year undergraduate at Beihang University Co-supervised with Prof. Raquel Urtasun Date: June 2013 – Nov 2013

#### **Undergraduate Thesis Supervision:**

Wesley Huang	4th year undergraduate at University of Toronto Thesis title: <i>Indoor navigation with visual targets</i> Date: Sept 2017 –
Juan Morales Vega	4th year undergraduate at UPC Thesis title: <i>Object instance segmentation using recurrent models</i> Date: Feb 2017 – June 2017
Daniel Son	Thesis title: <i>Labeling 3D CAD Scenes with 3D CNNs</i> Date: Sept 2016 - April 2016
Yiming Kang	Thesis title: <i>Matching Houses in Streetview</i> Date: Sept 2015 - May 2016
Zexuang Wang	Co-supervised with Prof. Raquel Urtasun Thesis title: <i>Analyzing Table Tennis Games</i> Date: Sept 2015 - May 2016
Annie Ngai	Co-supervised with Prof. Sven Dickinson Thesis title: <i>Efficient Fine-grained Object Recognition and Pose Estimation</i> Date: Sept 2014 - April 2015
Sung Baik	Co-supervised with Prof. Raquel Urtasun Thesis title: <i>Efficient Tracking by Detection</i> Date: Sept 2014 - April 2015

## Visiting Msc/PhD Students:

Aisha Alaagib	PhD student in Sudan Date: Sept 2019 – Jan 2020
Lara Dular	Phd student at University of Ljubljana Date: July 2019 – Sept 2019
Bo Dai	Phd student at CUHK Date: Sept 2017 – May 2018
Enric Corona	Msc student at UPC Date: May 2017 – Nov 2017
Ruiyu Li	Phd student at CUHK Co-supervised with Prof. Raquel Urtasun Date: May 2016 – Mar 2017
Shu Liu	Phd student at CUHK Co-supervised with Prof. Raquel Urtasun Date: May 2016 – Mar 2017
Zhi Luo	Msc student at Columbia University Date: June 2016 – Dec 2016
Urban Jezernik	Phd student at University of Ljubljana Co-supervised with Prof. Raquel Urtasun Date: Jan 2016 – Apr 2016
Makarand Tapaswi	Phd student at Karlsruhe Institute of Technology (KIT) Co-supervised with Prof. Raquel Urtasun Date: Sept 2015 – Dec 2015
Roosbeh Mottaghi	Phd student at UCLA, now a postdoc at Stanford University Co-supervised with Prof. Raquel Urtasun Date: June 2012 – Nov 2013
Abhishek Sharma	PhD student at University of Maryland Co-supervised with Prof. Raquel Urtasun. Date: June 2012 – Nov 2012
Edgar Simo-Serra	PhD student at Institut de Robotica i Informatica Industrial Co-supervised with Prof. Raquel Urtasun Date: June 2013 –Nov 2013, June 2014 – Nov 2014
Liang-Chieh Chen	PhD student at UCLA Co-supervised with Prof. Raquel Urtasun. Date: August 2013 – Nov 2013

## Press Coverage

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<b>Sept 2022</b>	World-Class: NVIDIA Research Builds AI Model to Populate Virtual Worlds With 3D Objects, Characters: <a href="#">NVIDIA blog</a>
<b>Sept 2022</b>	Reconstructing the Real World in DRIVE Sim With AI: <a href="#">NVIDIA blog</a>

- Aug 2022** Research Neural Fields Your Way with NVIDIA Kaolin Wisp: [NVIDIA blog](#)
- June 2022** AI in the Big Easy: NVIDIA Research Lets Content Creators Improvise With 3D Objects: [NVIDIA blog](#)
- March 2022** NVIDIA Showcases Novel AI Tools in DRIVE Sim to Advance Autonomous Vehicle Development: [NVIDIA blog](#)
- March 2022** AI-Driven, Physics-Based Character Animation : [GTC video](#)
- Jan 2022** High-precision Image Editing with AI: EditGAN: [NVIDIA blog](#)
- Dec 2021** NVIDIA Research: Generating Motion Capture Animation Without Hardware or Motion Data: [NVIDIA blog](#)
- April 2021** Knight Rider Rides a GAN: Bringing KITT to Life With AI, NVIDIA Omniverse: [NVIDIA blog](#)
- May 2020** NVIDIA's gameGAN re-creates Pacman on 40th Anniversary (featured in 250 news articles worldwide): [NVIDIA blog](#)
- Dec 2019** NVIDIA's 3D DL library Kaolin: [NVIDIA blog](#)
- Dec 2019** NVIDIA Researchers Bring Images to Life with AI: [NVIDIA blog](#)
- June 2019** NVIDIA's STEAL AI gives neural networks better computer vision: [Venturebeat](#)
- Nov 04, 2018** Our AI generated karaoke song appeared in the Simpsons episode
- June, 2018** NVIDIA: [NVIDIA blog](#)
- Nov, 2017** UofT interview: [UofT news](#)
- Sept, 2017** UofT article about the Elevate AI event: [UofT news](#)
- July, 2017** Featured article in CVPR Daily News:  
<http://www.rsipvision.com/CVPR2017-Tuesday/>  
Best of CVPR:  
<http://www.rsipvision.com/ComputerVisionNews-2017August/#10>
- July, 2017** UofT DCS News: Best paper honorable mention at CVPR'17: [link](#)
- Mar, 2017** UofT DCS News: Vector opening: [link 1](#), [link 2](#)
- Dec, 2016** H. Chu, R. Urtasun, S. Fidler, *Song From PI: A Musically Plausible Network for Pop Music Generation*
- News and tech websites:**
- |              |              |                            |
|--------------|--------------|----------------------------|
| The Register | The Guardian | New York Post              |
| The Star     | MailOnline   | University of Toronto news |
| GeekWire     | Yahoo style! | The Huffington Post        |
- Television and radio:**
- |     |          |           |
|-----|----------|-----------|
| BBC | CTV News | radioEins |
| NPR |          |           |
- March, 2016** A comment for Globe an Mail about Microsoft's bot Tay  
[www.theglobeandmail.com](http://www.theglobeandmail.com) [link](#)

**Dec, 2015** Our paper on MovieQA has been featured in MIT Technological Review.

**June-July, 2015** *Neuroaesthetics in Fashion: Modeling the Perception of Beauty*

Our CVPR'15 paper on fashion received a lot of attention from the media. It has been featured in a number of News websites, Fashion magazines and International news. We received numerous requests for interviews.

**News websites:**

New Scientist	Quartz	Tech Times
Wired (UK)	Mashable	AOL News
Huffington Post UK	Huffington Post Canada	MSN (Canada)
Protein	Yahoo (Canada)	Science Daily
Daily Mail (UK)	PSFK	Toronto Star
Gizmag	TheRecord.com	iDigitalTimes

**Fashion websites / news:**

Harper's Bazaar	Glamour	Elle
Cosmopolitan (UK)	Marie Claire	Fashion Magazine
Yahoo style	Red Magazine (UK)	The Pool (UK)
FashionNotes	Styleite	Health Beauty Life

**International news:**

Vogue (Spain)	Woman (Spain)	Stylebook (Germany)
Wired (Germany)	Jetzt (Germany)	Ansa (Italy)
La Gazzetta (Italy)	CenarioMT (Brazil)	Amsterdam Fashion (NL)
Marie Claire (France)	Fashion Police (Nigeria)	Nauka (Poland)
Pluska (Slovakia)	Presstext (Austria)	PopSugar (Australia)
SinEmbargo (Mexico)		

**Television and radio:**

RTVE (Spain)

## Talks

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Below is the list of my talks in the past few years:

1. NYU ECE Tandon speaker series  
3D Generative AI, invite talk Oct 2023
2. Elevate Festival, main stage  
Generative AI: the New Computing Era, keynote Sept 2023
3. Stanford Robotics Seminar  
A.I. for 3D Content Creation, invited talk April 2023
4. GTC'23  
Revolutionizing Autonomous Driving with Generative AI March 2023

5. GTC'22 Panel on Academia vs Entrepreneurship with Raquel Urtasun, Matthias Niessner, Jure Leskovec  
host  
Sept 2022
6. GTC'22 Future of AI panel with Geoffrey Hinton, Yoshua Bengio and Yann Lecun  
host  
Sept 2022
7. Vector faculty retreat  
Toronto Annotation Suite  
Toronto, Sept 2022
8. University of Toronto, talk for high school students  
Introduction to 3D Deep Learning  
June 2022
9. **NVIDIA SIGGRAPH keynote**  
Overview of NVIDIA's latest AI research  
Online video presentation, July 2022
10. **CVPR'22 Workshop on Autonomous Driving**  
*Neural Simulation*, invited talk  
New Orleans, June 2022
11. **CVPR'22 Workshop on Synthetic Data**  
*Neural Simulation*, invited talk  
New Orleans, June 2022
12. **NVIDIA SIGGRAPH keynote**  
Overview of NVIDIA's latest AI research  
Online video presentation, July 2021
13. **AI4ALL Invent the Future** summer school (for girls grade 10-12)  
*Towards A.I.-driven Simulation*, invited talk  
Online talk, July 2021
14. **BAIDU speaker series**  
*Towards A.I.-driven Simulation*, invited talk  
Online talk, June 2021
15. **CVPR'21 Workshop on 3D Deep Learning and Robotics**  
*Towards A.I.-driven Simulation*, invited talk  
Online talk, June 2021
16. **CVPR'21 Workshop on Autonomous Driving**  
*Towards A.I.-driven Simulation*, invited talk  
Online talk, June 2021
17. **CVPR'21 Workshop on Learning with Limited and Imperfect Data**  
*Towards A.I.-driven Simulation*, invited talk  
Online talk, June 2021
18. **CVPR'21 Workshop on Embodied AI**  
*Towards A.I.-driven Simulation*, invited talk  
Online talk, June 2021

19. **CVPR'21 Workshop on Robust Video Scene Understanding**  
*Towards A.I.-driven Simulation*, invited talk  
Online talk, June 2021
20. **CVPR'21 Workshop on Large Scale Holistic Video Understanding**  
*Towards A.I.-driven Simulation*, invited talk  
Online talk, June 2021
21. **Ontario Workshop in Computer Vision**  
*A.I. for Content Creation*, keynote  
Online talk, April 2021
22. **GTC**  
*A.I. for Content Creation*, invited talk  
Online talk, April 2021
23. **CMU seminar**  
*A.I. for Content Creation*, invited talk  
Online talk, March 2021
24. **Pinterest speaker series**  
*A.I. Data Factory for A.I.*, invited talk  
Online talk, Feb 2021
25. **MIT class Introduction to Deep Learning**  
*A.I. for Content Creation*, invited lecture  
Online talk, Jan 2021
26. **ASEF speaker series**  
*A.I. for Content Creation*, invited talk  
Online talk, Jan 2021
27. **NeurIPS'20**, Workshop on differentiable computer vision, graphics, and physics in machine learning  
*A.I. for Content Creation*, invited talk  
Online talk, Dec 2020
28. **GTC Fall**  
*A.I. for Content Creation*, invited talk  
Online talk, Oct 2020
29. **Technische University of Munich (TUM)**, Seminar Series  
*A.I. for Content Creation*, invited talk  
Online talk, Sept 2020
30. **BMVC**  
*A.I. for Content Creation*, keynote  
Online talk, Aug 2020
31. **Women in Computer Vision**, ECCV'20  
*A.I. for Content Creation*, invited talk  
Online talk, Aug 2020
32. **Task CV Workshop**, ECCV'20  
*A.I. for Content Creation*, invited talk  
Online talk, Aug 2020

33. **Workshop on Perception Through Structured Generative Models**, ECCV'20  
*A.I. for Content Creation*, invited talk  
Online talk, Aug 2020
34. **Invent the Future**, Summer school on AI intended for grade 10 and 11 girls  
*A.I. for Content Creation*, invite talk  
Online talk, July 2020
35. **AI City Workshop**, CVPR'20  
*A.I. for Content Creation*, invited talk  
Online talk, June 2020
36. **Workshop on AI for Content Creation**, CVPR'20  
*A.I. for Content Creation*, invited talk  
Online talk, June 2020
37. **Workshop on Learning 3D Generative Models**, CVPR'20  
*A.I. for Content Creation*, invited talk  
Online talk, June 2020
38. **SHAKER Pub Night**, University of Toronto  
*A.I. Data Factory for A.I.*, invited talk  
Toronto, Canada, Feb 2020
39. **Workshop on Science meets Engineering in Deep Learning**, NeurIPS'19  
*A.I. Data Factory for A.I.*, invited talk  
Vancouver, Canada, Dec 2019
40. **Workshop on Perception as generative reasoning**, NeurIPS'19  
*A.I. Data Factory for A.I.*, invited talk  
Vancouver, Canada, Dec 2019
41. **Samsung AI Forum**  
*A.I. Data Factory for A.I.*, invited talk  
Seoul, Korea, Nov 2019
42. **Workshop on Geometry Meets Deep Learning**, ICCV'19  
*Towards Automated 3D Content Creation*, invited talk  
Seoul, Korea, Nov 2019
43. **Workshop on Visual Recognition for Medical Images**, ICCV'19  
*Towards Automated 3D Content Creation*, invited talk  
Seoul, Korea, Oct 2019
44. **Workshop on Scene Graph Representation and Learning**, ICCV'19  
*Towards Automated 3D Content Creation*, invited talk  
Seoul, Korea, Oct 2019
45. **University of Washington**  
*A.I. Data Factory for A.I.*, invited talk  
Seattle, USA, Oct 2019
46. **Deep Learning Summer School** organized by Autodesk  
*A.I. Data Factory for A.I.*, invited talk  
Toronto, Canada, Aug 2019

47. **APS360** at UofT  
*Towards Automated 3D Content Creation*, invited lecture  
Toronto, Canada, July 2019
48. **CVSS summer school 2019**  
*Towards Automated 3D Content Creation*, invited lecture  
Black Forest, Germany, July 2019
49. **MILA**  
*Towards Automated 3D Content Creation*, invited talk  
Montreal, Canada, June 2019
50. **Workshop on VQA and Dialog**, CVPR'19  
*Compositional Reasoning Models*, invited talk  
Long Beach, USA, June 2019
51. **Workshop on 3D Scene Understanding for Vision, Graphics, and Robotics**, CVPR'19  
*Towards Automated 3D Content Creation*, invited talk  
Long Beach, USA, June 2019
52. **SUMO Workshop**, CVPR'19  
*Towards Automated 3D Content Creation*, invited talk  
Long Beach, USA, June 2019
53. **Workshop on Conceptual Captions**, CVPR'19  
*Compositional Reasoning Models*, invited talk  
Long Beach, USA, June 2019
54. **Workshop on Learning and Reasoning with Graph-Structured Representations**,  
ICML'19  
*Towards Automated 3D Content Creation*, invited talk  
Long Beach, USA, June 2019
55. **Workshop on Human in the Loop Learning**, ICML'10  
*Teaching Machines with Human in the Loop*, invited talk  
Long Beach, USA, June 2019
56. **AI World Forum**  
*A.I. Data Factory for A.I.*, keynote  
Toronto, Canada, March 2019
57. **a2-dlearn 2019**  
*A.I. Data Factory for A.I.*, invited talk  
Ann Arbor, USA, Feb 2019
58. **MIE 324** guest lecture at UofT  
*Teaching machines to see, communicate, and act*  
Toronto, Canada, Oct 2018
59. **POCV** workshop, co-located with ECCV'18  
*Teaching machines to see, communicate, and act*, invited talk  
Munich, Germany, Sept 2018
60. **Visual Learning and Embodied Agents in Simulation Environments** workshop, co-located  
with ECCV'18  
*VirtualHome: Representing Activities via Programs*, invited talk  
Munich, Germany, Sept 2018

61. Talk for interns at **NVIDIA**  
*Teaching Machines with Humans in the Loop*  
Santa Clara, USA, Aug 2018
62. **Medical Imaging Summer School (MISS'18)**  
*Learning with Less Supervision*  
Favignana, Italy, July 2018
63. **Deep Learning Summer School (DLSS'18)**  
*Deep Learning for Computer Vision*  
Toronto, Canada, July 2018
64. **Amazon's Computer Vision Conference**  
*Fashion Synthesis and Retrieval*  
Seattle, USA, April 2018
65. **GTC'18 conference**  
*Teaching Machines with Humans in the Loop*  
San Jose, USA, March 2018
66. **CVPR'18 AC meeting**  
*Efficient Object Annotation with Polygon-RNN*  
Toronto, Canada, Feb 2018
67. **New Deep Learning Techniques (DLT'18)**, Institute for Pure and Applied Mathematics  
*Teaching Machines with Humans in the Loop*, invited talk  
Los Angeles, USA, Feb 2018
68. **University of Toronto**, Mechanical Engineering Dept.  
*Towards machines that see, communicate, and act*, invited talk  
Toronto, Canada, Dec 2017
69. **VIGIL** workshop, co-located with NIPS'17  
*Teaching machines to see, communicate, and act*, invited talk  
Long Beach, USA, Dec 2017
70. **CIFAR** workshop, co-located with NIPS'17  
*Interactive Annotation with Polygon-RNN*, invited talk  
Long Beach, USA, Dec 2017
71. **NVIDIA at UofT** event  
*Teaching machines to see, communicate, and act*, invited talk  
Toronto, Canada, Nov 2017
72. **Re-work Deep Learning Summit**  
*Teaching machines to see, communicate, and act*, invited talk  
Montreal, Canada, Oct 2017
73. **Facebook Faculty Summit**  
*Teaching machines to see, communicate, and act*, invited talk  
New York City, USA, Oct 2017
74. **University of Toronto**, Engineering Dept.  
*Towards machines that see, communicate, and act*, invited talk  
Toronto, Canada, Sept 2017

75. **Acivs conference**  
*Towards machines that see, communicate, and act*, invited talk  
Antwerp, Belgium, Sept 2017
76. **Elevate AI**, <http://elevatetoronto.com/event/elevate-ai/>  
*Machine Vision*, lighting talk  
Toronto, Canada, Sept 2017
77. **ACL'17 Workshop on Representation Learning for NLP**  
*Learning Joint Embeddings of Vision and Language*, keynote  
Vancouver, Canada, August 2017
78. **CVPR'17 Workshop on Deep-Vision: Deep Learning in Computer Vision**  
*Towards perceptual machines that parse, communicate, and act*, invited talk  
Honolulu, Hawaii, July 2017
79. **CVPR'17 Workshop on Visual Question Answering Challenge**  
*Teaching machines via natural language feedback*, invited talk  
Honolulu, Hawaii, July 2017
80. **CVPR'17 Workshop on Continuous and Open-Set Learning**  
*Learning Joint Embeddings of Vision and Language*, keynote  
Honolulu, Hawaii, July 2017
81. **International Computer Vision Summer School (ICVSS'17)**  
*Learning Joint Embeddings of Vision and Language*, invited lecture  
Sicily, Italy, July 2017
82. **Google faculty summit**  
*Towards perceptual machines that parse, communicate, and act*, invited talk  
Zurich, Switzerland, July 2017
83. **Women in Robotics** seminar series  
*Towards perceptual machines that see, communicate, and reason*, invited talk  
Toronto, Canada, May 2017
84. **Deep Learning Summit** by Re-Work  
*Towards understanding stories in videos*, invited talk  
Boston, USA, May 2017
85. Seminar at **MERL** (Mitsubishi Electric Research Lab)  
*Learning Joint Embeddings of Images and Language*, invited talk  
Boston, USA, May 2017
86. **NVIDIA's GPU Technology Conference (GTC'17)**  
*Towards understanding stories in videos*, invited talk  
According to GTC participant survey: Speaker rating: 5/5, content rating 4.88/5  
Palo Alto, USA, May 2017
87. **CogSci seminar** at University of Toronto  
*Towards understanding stories in videos*, invited talk  
Toronto, Canada, March 2017
88. Seminar at **Qualcomm**  
*Learning Joint Embeddings of Images and Language*, invited talk  
Markham, Canada, March 2017

89. **TedX@UofT** at University of Toronto  
*Towards understanding stories in videos*, invited talk  
Toronto, Canada, Feb 2017
90. **Robust Vision Symposium** at MPI Tuebingen  
*Learning Embeddings of Images and Language*, invited talk  
Tuebingen, Germany, Jan 2017
91. **Fields ML Seminar**  
*Learning Embeddings of Images and Language*, invited talk  
Toronto, Canada, Nov 2016
92. **AI night** at University of Toronto  
*Towards understanding stories in videos*, invited talk  
Toronto, Canada, Nov 2016
93. **Workshop on Storytelling with Images and Videos** at ECCV'16  
*Learning Embeddings of Images and Language*, invited talk  
Amsterdam, Netherlands, October 2016
94. **Joint Imagenet and MS Coco Visual Recognition Challenge Workshop** at ECCV'16  
*Learning Embeddings of Images and Language*, keynote  
Amsterdam, Netherlands, October 2016
95. **CogSci graduate orientation day** at University of Toronto  
*The Gee-Whiz of A.I.*, invited talk  
Toronto, Canada, Sep 2016
96. **ACCV'16 Area Chair meeting**  
*Towards Understanding Stories from Videos*, talk  
Taipei, Taiwan, August 2016
97. **Deep Learning Workshop at ICML'16**  
*Towards Understanding Stories from Videos*, invited talk  
New York City, US, June 2016
98. **Carnegie Mellon University**  
*Towards Understanding Stories from Videos*, invited talk (vision seminar)  
Pittsburgh, US, April 2016
99. **University of Pittsburgh**  
*Towards Understanding Stories from Videos*, invited talk (vision seminar)  
Pittsburgh, US, April 2016
100. **University of Toronto**  
*Towards perceptual machines that see, communicate, and reason*, invited talk  
Toronto, Canada, March 2016
101. **CVPR'16 Area Chair meeting**  
*Towards Understanding Stories from Videos*, talk  
Vancouver, Canada, February 2016
102. **York University**  
*Towards Understanding Stories from Videos*, invited talk  
Toronto, Canada, January 2016

103. **Scenes From Video (SFV), Workshop in conjunction with ICCV'15**  
*Towards Story-like Descriptions by Watching Movies and Reading Books*, invited talk  
Santiago, Chile, December 2015
104. **Closing the Loop Between Vision and Language, Workshop at ICCV'15**  
*Towards Story-like Descriptions by Watching Movies and Reading Books*, invited talk  
Santiago, Chile, December 2015
105. **Describing and Understanding Video & The Large Scale Movie Description Challenge (LSMDC), Workshop at ICCV'15**  
*Towards Story-like Descriptions by Watching Movies and Reading Books*, invited talk  
Santiago, Chile, December 2015
106. **3D Scene Understanding, Workshop at ICCV'15**  
*3D Indoor Scene Understanding and Localization*, invited talk  
Santiago, Chile, December 2015
107. **Women in Computer Vision, Workshop at CVPR'15**  
*Understanding Complex Scenes and People That Talk About Them*, invited talk  
Boston, US, June 2015
108. **Symposia at CRV'15**  
*Understanding Complex Scenes and People That Talk About Them*, invited talk  
Halifax, Canada, June 2015
109. **Deep Learning for Vision, Workshop at DALI'15**  
*Scene Understanding or How I Grew To Like Deep Learning*, invited talk  
Canary Islands, Spain, April 2015
110. **University of Pennsylvania**  
*Understanding Complex Scenes and People That Talk About Them*, invited talk at the GRASP vision seminar  
Philadelphia, US, March 2015
111. **Dagstuhl Workshop on Holistic Scene Understanding**  
*Understanding Complex Scenes and People That Talk About Them*, invited talk  
Dagstuhl, Germany, February 2015
112. **Karlsruhe Institute of Technology**  
*Understanding Complex Scenes and People That Talk About Them*, invited talk  
Karlsruhe, Germany, February 2015
113. **The Hong Kong Polytechnic University**  
*Understanding Complex Scenes and People That Talk About Them*, invited talk  
Hong Kong, December 2014
114. **AI Night, University of Toronto**  
*Understanding Complex Scenes and People That Talk About Them*, invited talk  
Toronto, Canada, November 2014
115. **University of Ljubljana**  
*Computer Vision*, invited lecture for a math summer school  
Ljubljana, Slovenia, August 2014
116. **International Conference on Computer Vision (ICCV) 2013**  
*Holistic Scene Understanding for 3D Object Detection with RGBD cameras*, oral presentation  
Sydney, Australia, December 2013

117. **MPI Tuebingen, Perceiving Systems**  
*2D and 3D object detection by exploiting segmentation and contextual information*, invited talk  
Tuebingen, Germany, September 2013
118. **Microsoft Research**  
*2D and 3D object detection by exploiting segmentation and contextual information*, invited talk  
Cambridge, UK, September 2013
119. **Midwest Vision Workshop**  
*Bottom-up Segmentation for Top-down Detection*  
Chicago, US, May 2013

# Publications

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## Journal Articles and Book Chapters

1. D. Damen, H. Doughty, G. Farinella, **S. Fidler**, A. Furnari, E. Kazakos, D. Moltisanti, J. Munro, T. Perrett, W. Price, M. Wray. The EPIC-KITCHENS Dataset: Collection, Challenges and Baselines. *Trans. on Pattern Analysis and Machine Intelligence*, 2020.
2. B. Zhou, H. Zhao, X. Puig, T. Xiao, **S. Fidler**, A. Barriuso, A. Torralba. Semantic Understanding of Scenes Through the ADE20K Dataset. *International Journal of Computer Vision*, 2018
3. X. Chen, K. Kundu, Y. Zhu, H. Ma, **S. Fidler**, R. Urtasun. 3D Object Proposals using Stereo Imagery for Accurate Object Class Detection. *Trans. on Pattern Analysis and Machine Intelligence*, 2017
4. R. Mottaghi, A. Yuille, **S. Fidler**, R. Urtasun, D. Parikh. Human-Machine CRFs for Identifying Bottlenecks in Scene Understanding. *Trans. on Pattern Analysis and Machine Intelligence*, Vol. 38, Num. 1, pp 74-87, 2016.
5. T. Lee, **S. Fidler**, A. Levinstein, C. Sminchisescu, S. Dickinson, *A Framework for Symmetric Part Detection in Cluttered Scenes*, MDPI Symmetry, Vol. 7, pp 1333-1351, 2015.
6. M. Fritz, M. Andriluka, **S. Fidler**, M. Stark, A. Leonardis, B. Schiele. Categorical Perception. In: *Cognitive Systems*, Editors: H. I. Christensen, G.-J. Kruijff, A. Sloman and J. Wyatt, Springer, 2010.
7. **S. Fidler**, M. Boben, A. Leonardis. Learning Hierarchical Compositional Representations of Object Structure. In: *Object Categorization: Computer and Human Vision Perspectives*, Editors: S. Dickinson, A. Leonardis, B. Schiele and M. J. Tarr, Cambridge University Press, 2009.
8. L. Furst, **S. Fidler**, A. Leonardis. Selecting features for object detection using an AdaBoost-compatible evaluation function. *Pattern Recognition Letters (PRL)*, 2008, vol. 29, no. 11, pp. 1603 – 1612.
9. **S. Fidler**, D. Skočaj, A. Leonardis. Combining Reconstructive and Discriminative Subspace Methods for Robust Classification and Regression by Subsampling. *IEEE Transactions on Pattern Analysis and Machine Intelligence (IEEE PAMI)*, 2006, vol. 28(3), pp. 337 – 350.

## Conference Papers

1. Zian Wang\*, Tianchang Shen\*, Merlin Nimier-David\*, Nicholas Sharp, Jun Gao, Alexander Keller, **Sanja Fidler**, Thomas Müller, Zan Gojcic. Adaptive Shells for Efficient Neural Radiance Field Rendering. SIGGRAPH Asia, 2023
2. Towaki Takikawa, Thomas Müller, Merlin Nimier-David, Alex Evans, **Sanja Fidler**, Alec Jacobson, Alexander Keller. Compact Neural Graphics Primitives with Learned Hash Probing. SIGGRAPH Asia, 2023
3. Tianshi Cao, Karsten Kreis, **Sanja Fidler**, Nicholas Sharp\*, Kangxue Yin\*. TexFusion: Synthesizing 3D Textures with Text-Guided Image Diffusion Models. In International Conference on Computer Vision (ICCV), 2023, **oral presentation**.
4. Daiqing Li\*, Huan Ling\*, Amlan Kar, David Acuna, Seung Wook Kim, Karsten Kreis, Antonio Torralba, **Sanja Fidler**. DreamTeacher: Pretraining Image Backbones with Deep Generative Models. In International Conference on Computer Vision (ICCV), 2023

5. Shengyu Huang, Zan Gojcic, Zian Wang, Francis Williams, Yoni Kasten, **Sanja Fidler**, Konrad Schindler, Or Litany. Neural LiDAR Fields for Novel View Synthesis. In International Conference on Computer Vision (ICCV), 2023
6. Tzofi Klinghoffer, Jonah Philion, Wenzheng Chen, Or Litany, Zan Gojcic, Jungseock Joo, Ramesh Raskar, **Sanja Fidler**, Jose Alvarez. Towards Viewpoint Robustness in Bird’s Eye View Segmentation. In International Conference on Computer Vision (ICCV), 2023
7. Jonathan Lorraine, Kevin Xie, Xiaohui Zeng, Chen-Hsuan Lin, Towaki Takikawa, Nicholas Sharp, Tsung-Yi Lin, Ming-Yu Liu, **Sanja Fidler**, James Lucas. ATT3D: Amortized Text-to-3D Object Synthesis. In International Conference on Computer Vision (ICCV), 2023
8. Jingbo Wang, Ye Yuan, Zhengyi Luo, Kevin Xie, Dahua Lin, Umar Iqbal, **Sanja Fidler**, Sameh Khamis. Learning Human Dynamics in Autonomous Driving Scenarios. In International Conference on Computer Vision (ICCV), 2023
9. Yanwei Li, Zhiding Yu, Jonah Philion, Animashree Anandkumar, **Sanja Fidler**, Jiaya Jia, Jose Alvarez. End-to-end 3D Tracking with Decoupled Queries. In International Conference on Computer Vision (ICCV), 2023
10. Haotian Zhang, Ye Yuan, Viktor Makoviychuk, Yunrong Guo, **Sanja Fidler**, Xue Bin Peng, Kayvon Fatahalian. Learning Physically Simulated Tennis Skills from Broadcast Videos. SIGGRAPH 2023, **best paper honorable mention**.
11. Mohamed Hassan, Yunrong Guo, Tingwu Wang, Michael Black, **Sanja Fidler**, Xue Bin Peng. Synthesizing Physical Character-Scene Interactions. SIGGRAPH 2023
12. Tianchang Shen, Jacob Munkberg, Jon Hasselgren. Kangxue Yin, Zian Wang, Wenzheng Chen, Zan Gojcic, **Sanja Fidler**, Nicholas Sharp\*, Jun Gao\*. Flexible Isosurface Extraction for Gradient-Based Mesh Optimization. SIGGRAPH 2023
13. Viraj Uday Prabhu, David Acuna, Rafid Mahmood, Marc T. Law, Yuan-Hong Liao, Judy Hoffman, **Sanja Fidler**, James Lucas. Bridging the Sim2Real gap with CARE: Supervised Detection Adaptation with Conditional Alignment and Reweighting. TMLR, 2023
14. Jiahui Huang, Zan Gojcic, Matan Atzmon, Or Litany, **Sanja Fidler**, Francis Williams. Neural Kernel Surface Reconstruction. In Computer Vision and Pattern Recognition (CVPR), 2023, **oral presentation**.
15. Chen-Hsuan Lin\*, Jun Gao\*, Luming Tang\*, Towaki Takikawa\*, Xiaohui Zeng\*, Xun Huang, Karsten Kreis, **Sanja Fidler**, Ming-Yu Liu, Tsung-Yi Lin: Magic3D: High-Resolution Text-to-3D Content Creation. In Computer Vision and Pattern Recognition (CVPR), 2023.
16. Zian Wang, Tianchang Shen, Jun Gao, Shengyu Huang, Jacob Munkberg, Jon Hasselgren, Zan Gojcic, Wenzheng Chen, **Sanja Fidler**. Neural Fields meet Explicit Geometric Representations for Inverse Rendering of Urban Scenes. In Computer Vision and Pattern Recognition (CVPR), 2023
17. Seung Wook Kim\*, Bradley Brown\*, Kangxue Yin, Karsten Kreis, Katja Schwarz, Daiqing Li, Robin Rombach, Antonio Torralba, **Sanja Fidler**. NeuralField-LDM: Scene Generation with Hierarchical Latent Diffusion Models. In Computer Vision and Pattern Recognition (CVPR), 2023.
18. Andreas Blattmann\*, Robin Rombach\*, Huan Ling\*, Tim Dockhorn, Seung Wook Kim, **Sanja Fidler**, Karsten Kreis. Align your Latents: High-Resolution Video Synthesis with Latent Diffusion Models. In Computer Vision and Pattern Recognition (CVPR), 2023.
19. Davis Rempe\*, Zhengyi Luo\*, Xue Bin Peng, Ye Yuan, Kris M. Kitani, Karsten Kreis, **Sanja Fidler**, Or Litany. Trace and Pace: Controllable Pedestrian Animation via Guided Trajectory Diffusion. In Computer Vision and Pattern Recognition (CVPR), 2023.

20. Maria Shugrina, Chin-Ying Li, **Sanja Fidler**. Neural Brushstroke Engine: Learning a Latent Style Space of Interactive Artistic Tools. SIGGRAPH Asia, 2022
21. Jordan Juravsky, Yunrong Guo, **Sanja Fidler**, Xue Bin Peng. PADL: Language-Directed Physics-Based Character Control. SIGGRAPH Asia, 2022.
22. Jun Gao, Tianchang Shen, Zian Wang, Wenzheng Chen, Kangxue Yin, Daiqing Li, Or Litany, Zan Gojcic, **Sanja Fidler**. GET3D: A Generative Model of High Quality 3D Textured Shapes Learned from Images. In Neural Information Processing Systems (NeurIPS), 2022.
23. Xiaohui Zeng, Arash Vahdat, Francis Williams, Zan Gojcic, Or Litany, **Sanja Fidler**, Karsten Kreis. LION: Latent Point Diffusion Models for 3D Shape Generation. In Neural Information Processing Systems (NeurIPS), 2022.
24. Rafid Mahmood, James Lucas, Jose Alvarez, **Sanja Fidler**, Marc Law. Optimizing Data Collection for Machine Learning. In Neural Information Processing Systems (NeurIPS), 2022.
25. Zian Wang, Wenzheng Chen, David Acuna, Jan Kautz, **Sanja Fidler**. Neural Light Field Estimation for Outdoor Scenes with Differentiable Virtual Object Insertion. In European Conference on Computer Vision (ECCV), 2022.
26. Gopal Sharma, Kangxue Yin, Subhransu Maji, Evangelos Kalogerakis, Or Litany, **Sanja Fidler**. MvDeCor: Multi-view Dense Correspondence Learning for Fine-grained 3D Segmentation. In European Conference on Computer Vision (ECCV), 2022.
27. Hassan Abu Alhaija, Alara Dirik, Andre Knorig, **Sanja Fidler**, Maria Shugrina. XDGAN: Multi-Modal 3D Shape Generation in 2D Space. In British Machine Vision Conference (BMVC), 2022.
28. X. B. Peng, Y. Guo, L. Halper, S. Levine, **S. Fidler**. ASE: Large-Scale Reusable Adversarial Skill Embeddings for Physically Simulated Characters. SIGGRAPH'22 – journal
29. Hsueh-Ti Derek Liu, Francis Williams, Alec Jacobson, **S. Fidler**, Or Litany. Learning Smooth Neural Functions via Lipschitz Regularization. SIGGRAPH'22 – conference.
30. Towaki Takikawa, Alex Evans, Jonathan Tremblay, Thomas Müller, Morgan McGuire, Alec Jacobson, **S. Fidler**. Variable Bitrate Neural Fields. SIGGRAPH'22 – conference.
31. Zhiqin Chen, Kangxue Yin, **S. Fidler**. AUV-Net: Learning Aligned UV Maps for Texture Transfer and Synthesis. In Computer Vision and Pattern Recognition (CVPR), 2022.
32. Jacob Munkberg, Jon Hasselgren, Tianchang Shen, Jun Gao, Wenzheng Chen, Alex Evans, Thomas Müller, **S. Fidler**. Extracting Triangular 3D Models, Materials, and Lighting From Images. In Computer Vision and Pattern Recognition (CVPR), 2022, **oral presentation**.
33. Seung Wook Kim, Karsten Kreis, Daiqing Li, Antonio Torralba, **S. Fidler**. Polymorphic-GAN: Generating Aligned Samples across Multiple Domains with Learned Morph Maps. In Computer Vision and Pattern Recognition (CVPR), 2022, **oral presentation**.
34. Davis Rempe, Jonah Philion, Leonidas Guibas, **S. Fidler**, Or Litany. Generating Useful Accident-Prone Driving Scenarios via a Learned Traffic Prior. In Computer Vision and Pattern Recognition (CVPR), 2022.
35. Daiqing Li, Huan ling, Seung Wook Kim, Karsten Kreis, **S. Fidler**, Antonio Torralba. BigDataset-GAN: Synthesizing ImageNet with Pixel-wise Annotations. In Computer Vision and Pattern Recognition (CVPR), 2022.
36. Rafid Mahmood, James Lucas, David Acuna, Daiqing Li, Jonah Philion, Jose Alvarez, Zhiding Yu, **S. Fidler**, Marc T Law. How Much More Data Do I Need? Estimating Requirements for Downstream Tasks. In Computer Vision and Pattern Recognition (CVPR), 2022.

37. Matan Atzmon, Koki Nagano, **S. Fidler**, Sameh Khamis, Yaron Lipman. Frame Averaging for Equivariant Shape Space Learning. In Computer Vision and Pattern Recognition (CVPR), 2022.
38. Francis Williams, Zan Gojcic, Sameh Khamis, Denis Zorin, Joan Bruna, **S. Fidler**, Or Litany. Neural fields as learnable kernels for 3D reconstruction. In Computer Vision and Pattern Recognition (CVPR), 2022.
39. D.Acuna, G. Zhang, M. T Law, **S. Fidler**. Domain Adversarial Training: A Game Perspective. In International Conference on Learning Representations (ICLR), 2022.
40. R. Mahmood, M.T. Law, **S. Fidler**. Low Budget Active Learning via Wasserstein Distance: An Integer Programming Approach. In International Conference on Learning Representations (ICLR), 2022.
41. H. Ling, K. Kreis, D. Li, S. Wook Kim, A. Torralba, **S. Fidler**. EditGAN: High-Precision Semantic Image Editing. In Neural Information Processing Systems (NeurIPS), 2021.
42. T. Shen, J. Gao, K. Yin, M.-Y. Liu, **S. Fidler**. Deep Marching Tetrahedra: a Hybrid Representation for High-Resolution 3D Shape Synthesis. In Neural Information Processing Systems (NeurIPS), 2021.
43. W. Chen, J. Litalien, J. Gao, Z. Wang, C. Fuji Tsang, S. Khamis, O. Litany, **S. Fidler**. DIB-R++: Learning to Disentangle Material from Lighting Using a Deferred Image-based Renderer. In Neural Information Processing Systems (NeurIPS), 2021.
44. D. Paschalidou, A. Kar, M. Shugrina, K. Kreis, A. Geiger, **S. Fidler**. ATISS: Autoregressive Transformers for Indoor Scene Synthesis. In Neural Information Processing Systems (NeurIPS), 2021.
45. D. Acuna, Jonah Philion, **S. Fidler**. Towards Optimal Strategies for Training Self-Driving Perception Models in Simulation. In Neural Information Processing Systems (NeurIPS), 2021.
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## Theses

### PhD thesis

*Recognizing Visual Object categories with Subspace Methods and a Learned Hierarchical Shape Vocabulary*. University of Ljubljana, 2010.

### Diploma thesis

*Independent Component Analysis*. University of Ljubljana, 2002.