# Yifan Wang — CURRICULUM VITAE

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**Research Interests**

Learning-based image and video processing, geometry processing.

**Education**

*ETH Zurich,* Fall 2017 - Now
**PhD Candidate in Computer Science**
Research Topic: Detail-driven geometry processing pipeling using neural networks, supervised by Prof. Olga Sorkine-Hornung.

*ETH Zurich,* Fall 2014 - Fall 2016
**Master of Science in Robotics, Systems and Control**
Graduated with distinction.
Master Thesis: Semantic-Regional CNNs for Action Recognition, supervised by Prof. Otmar Hilliges.

*ETH Zurich,* Fall 2013 - Spring 2014
**ERASMUS program in Electrical Engineering**

*TU Munich,* Fall 2010 - Spring 2013
**Bachelor of Science in Electrical Engineering and Information Technology**
Graduated with distinction.
Bachelor Thesis: High Data Rate MIMO Configuration for LEO Satellite Communications.

**Publications**

[1] Geometry-Consistent Neural Shape Representation with Implicit Displacement Fields - **Wang Yifan**, Lukas Rahmann, Olga Sorkine-Hornung. arXiv 2021

[2] Iso-Points: Optimizing Neural Implicit Surfaces with Hybrid Representations - **Wang Yifan**, Shihao Wu, Cengiz Öztireli, Olga Sorkine-Hornung. CVPR 2021

[3] Neural Cages for Detail-Preserving 3D Deformations - **Wang Yifan**, Noam Aigerman, Vladmir Kim, Siddhartha Chaudhuri, Olga Sorkine-Hornung. CVPR 2020, **oral presentation**.

[4] Blind image super resolution with spatially variant degradations - Victor Cornillère, Abdelaziz Djelouah, **Wang Yifan**, Olga Sorkine-Hornung, Christopher Schroers. ACM Transactions on Graphics (TOG) 38.6 (2019): 166.

[5] Patch-based Progressive 3D Point Set Upsampling - **Wang Yifan**, Shihao Wu, Hui Huang, Daniel Cohen-Or and Olga Sorkine-Hornung. CVPR 2019.

[6] A Fully Progressive Approach to Single-Image Super-Resolution - **Yifan Wang**, F. Perazzi, B. McWilliams, A. Sorkine-Hornung, O. Sorkine-Hornung, C. Schroers. CVPRW 2018.

[7] Two-Stream SR-CNNs for Action Recognition in Videos - **Yifan Wang**, Jie Song, Limin Wang, Luc Van Gool and Otmar Hilliges. BMVC 2016.

**Patents (including pending)**

US patenting: Techniques For Performing Point-Based Inverse Rendering (US Patent App. 16/586,746) 2019

US patenting: Techniques for Upscaling Images Generated with Undetermined Downscaling Kernels (US Patent App. 16/542,227) 2019

US patenting: Video Super-Resolution Using An Artificial Neural Network (US Patent App. 15/886,625) 2017

**Research Internships**

*DeepMind, (remote) London UK* Jul 2021 - Nov 2021
geometry-aware video understanding

*Adobe Research, Seattle USA* Jun 2019 - Sep 2019
deformation-based shape generation

*AICFVE, Beijing China* May 2017
Image-to-image translation

*Disney Research, Zurich Switzerland* Fall 2016 - Feb 2017
Image super-resolution

*ETH Zurich, Zurich Switzerland* May 2016 - Jul 2016
Action Recognition from Videos

*BMW Research and Technology, Munich Germany* May 2014 - Jul 2014
Hardware for augmented reality

**Awards**

*Apple Fellowship in AI/ML* 2020
Recipient in area "Augmented Reality and Computer Vision"

*Facebook Fellowship* 2020
Finalist in area "Computer Graphics"

*New Trends in Image Restoration and Enhancement Challenge* 2018
Winner Award in Track 1 and Honorable Mention in Tracks 2-4.

*HackZurich* 2016
Finalist in Europe's largest Hackathon.

*Heinrich und Lotte Münlfenzl-Stiftung* 2013
Selected recipient

**Invited Talks**

*Toronto Geometry Colloquium (toronto-geometry-colloquium.github.io)* Feb 2021
"Detail-Driven 3D Content Creation"

*Graphics And Mixed Environment Seminar (games-cn.org)* Jun 2020
"Detail-driven shape deformation"

**Selected Courses**

Geometry Processing and Shape Modelling, Image Analysis and Computer Vision, 3D pho-

tography, Machine Learning, Probabilistic Artificial Intelligence, Probabilistic Graphical Models for Image Analysis

**Teaching**

I'm teaching assistant for "Linear Algebra for Computer Science" and "C++ for Mechanical Engineers".