

ETH Zurich
Department of Computer Science
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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 raw data restoration and enhancement, 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

Neural Cages for Detail-Preserving 3D Deformations - **Wang Yifan**, Noam Aigerman, Vladimir Kim, Siddhartha Chaudhuri, Olga Sorkine-Hornung. arXiv 2019.

Differentiable Surface Splatting for Point-based Geometry Processing - **Wang Yifan**, Felice Serena, Shihao Wu, Cengiz Öztireli, Olga Sorkine-Hornung. ACM Transactions on Graphics (TOG) 38.6 (2019): 230.

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.

Patch-based Progressive 3D Point Set Upsampling - **Wang Yifan**, Shihao Wu, Hui Huang, Daniel Cohen-Or and Olga Sorkine-Hornung. Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition. 2019.

A Fully Progressive Approach to Single-Image Super-Resolution - **Yifan Wang**, F. Perazzi, B. McWilliams, A. Sorkine-Hornung, O. Sorkine-Hornung, C. Schroers. Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition Workshops. 2018.

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)

Video Super-Resolution Using An Artificial Neural Network
US Patent App. 15/886,625

Positions

Research Intern
Seattle, USA
Topic: Shape generation

Adobe Research
Jun 2019 - Sep 2019

Research Intern
Zurich, Switzerland
Topic: Image super-resolution

Disney Research
Fall 2016 - Feb 2017

Research Assistant
Zurich, Switzerland
Topic: Action Recognition from Videos

ETH Zurich
May 2016 - Jul 2016

Internship
Munich, Germany
Topic: Hardware for augmented reality, ConnectedDrive Project

BMW Research and Technology
May 2014

Awards

New Trends in Image Restoration and Enhancement Challenge 2018 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

Selected Courses

Geometry Processing and Shape Modelling, Image Analysis and Computer Vision, 3D photography, 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".