Yifan Wang — CURRICULUM VITAE

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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

Iso-Points: Optimizing Neural Implicit Surfaces with Hybrid Representations - **Wang Yifan**, Shihao Wu, Cengiz Öztireli, Olga Sorkine-Hornung. arXiv 2020

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

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. CVPR 2019.

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.

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

Techniques For Performing Point-Based Inverse Rendering
Pending

Techniques for Upscaling Images Generated with Undetermined Downscaling Kernels
Pending

Positions

Research Intern — *Adobe Research - Seattle, USA*
Topic: Shape generation — Jun 2019 - Sep 2019

Research Intern — *AICFVE - Beijing, China*
Topic: Image-to-image translation — May 2017

Research Intern — *Disney Research - Zurich, Switzerland*
Topic: Image super-resolution — Fall 2016 - Feb 2017

Research Assistant — *ETH Zurich - Zurich, Switzerland*
Topic: Action Recognition from Videos — May 2016 - Jul 2016

Internship — *BMW Research and Technology - Munich, Germany*
Topic: Hardward for argmented reality, ConnectedDrive Project — May 2014

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

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".