Xianyao Zhang

Joint doctoral student
Computer Graphics Lab, D-INFK, ETH Zürich
DisneyResearch|Studios

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Education

Ph. D. in *Computer Science*, ETH Zürich.   2019.8-present

M. Sc. in *Computer Science*, ETH Zürich (with distinction).   2017.9-2019.7

B. Sc. in *Intelligence Science and Technology*, Peking University (with distinction).   2013.9-2017.7

Academic Experience

PhD Student, DisneyResearch|Studios and Computer Graphics Lab, ETH Zürich   2019.8-present
Advisor: *Prof. Dr. Markus Gross*, *Dr. Marios Papas*
Topic: **Denoising Monte Carlo Renderings with Machine Learning**

Master Thesis, DisneyResearch|Studios and Computer Graphics Lab, ETH Zürich   2018.11-2019.5
Advisor: *Dr. Marios Papas*, *Thijs Vogels* and *Thomas Müller*
Project: **Denoising Radiance Samples in Scene Space with Order-Independent Neural Networks**

Bachelor Thesis, Key Laboratory of Machine Perception (MoE), Peking University   2016.11-2017.6
Advisor: *Prof. Zhouchen Lin*
Project: **Fast Multiple Affine Template Matching**

Research Assistant, NELVT, Peking University   2015.12-2016.11
Advisor: *Prof. Yizhou Wang*
Project: **Video Inpainting with GAN**

Teaching Assistant, Department of Computer Science, ETH Zürich   Fall 2018/19/20/22
Course: **Computer Graphics**

Teaching Assistant, Department of Computer Science, ETH Zürich   Spring 2020/21/22/23
Course: **Scientific Visualization**

Professional Experience

Intern, Rendering Group, Disney Research Zürich   2018.4-2018.9
Mentor: *Dr. Jan Novak*
Project: **Denoising Monte-Carlo renderings with low sample counts**

Publications

Xianyao Zhang, Gerhard Röthlin, Marco Manzi, Markus Gross, Marios Papas.
Deep Compositional Denoising on Frame Sequences.
Eurographics Symposium on Rendering 2023 (**EGSR2023**), Industry Track.

Shilin Zhu, **Xianyao Zhang**, Gerhard Röthlin, Marios Papas, Mark Meyer.
Denoising Production Volumetric Rendering.
SIGGRAPH 2023 Talks.

Xianyao Zhang, Melvin Ott, Marco Manzi, Markus Gross, Marios Papas.
Automatic Feature Selection for Denoising Volumetric Renderings.
Computer Graphics Forum 41(4), Proceedings of Eurographics Symposium on Rendering 2022 (**EGSR2022**).

Xianyao Zhang, Marco Manzi, Thijs Vogels, Henrik Dahlberg, Markus Gross, Marios Papas.
Deep Compositional Denoising for High-quality Monte Carlo Rendering.
Computer Graphics Forum 40(4), Proceedings of Eurographics Symposium on Rendering 2021 (**EGSR2021**).

Skills

Programming

Languages: Proficient in Python, MATLAB, C/C++; familiar with HTML, JavaScript, LaTeX, CUDA

Toolboxes: TensorFlow, Dash/Plotly, OpenCV, Torch7, CGAL, Boost Graph Library.

Languages

Chinese: native

English: fluent

German: intermediate

Miscellaneous: Minesweeper world ranking #6 (personal best for expert mode: $32.62s$)

Awards and Honors

Willi-Studer Prize (1/150), ETH Zürich, 2020.

Excellent Undergraduate of Beijing, Peking University, 2017.

Excellent Undergraduate Thesis, Peking University, 2017.

Founder Scholarship (top 5%), Peking University, 2014 and 2016.

Merit Student (top 5%), Peking University, 2015 and 2016.

Tung OOCL Scholarship (top 5%), Peking University, 2015.