Kirill Mazur

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Education

Imperial College London 2021 - present
Ph.D. student in Computer and Robotic Vision
- Dyson Robotics Lab; Supervisor: Andrew J. Davison

Skolkovo Institute of Science and Technology, GPA: 3.83 out of 4.00 2018 - 2020
M.Sc. in Mathematics and Computer Science (with honors)
- Thesis: "Cloud Transformers". Supervisors: Victor Lempitsky and Gonzalo Ferrer
- First year project: "Learnable point cloud descriptors for depth-only odometry and SLAM"

Yandex School of Data Analysis (YSDA), GPA: 4.84 out of 5.00 2016 - 2018
Computer Science (Masters-level degree school organized by Yandex)

Higher School of Economics (NRU HSE), GPA: 9.22 out of 10.0 2014 - 2018
B.Sc. in Mathematics
- Thesis: "On the Families of Quartics and Rational Curves on the Quotient of the Quartic by the Involution"

Publications

SuperPrimitive: Scene Reconstruction at a Primitive Level
Kirill Mazur, Gwangbin Bae, Andrew J. Davison [project page, video]
Introduces a new representation for monocular scene reconstruction based on image segments.
Preprint, 2023

Feature-Realistic Neural Fusion for Real-Time, Open Set Scene Understanding
Kirill Mazur, Edgar Sucar, Andrew J. Davison [project page, video]
Presents a new real-time high-dimensional feature fusion technique for open set scene understanding.
*International Conference on Robotics and Automation (**ICRA**) 2023*

Point-Based Clothing Modeling
Ilya Zakharkin*, Kirill Mazur*, Artur Grigorev, Victor Lempitsky [project page, code]
Presents a new technique for a visual try-on and clothes re-targeting for complex garments.
*International Conference on Computer Vision (**ICCV**) 2021*

Cloud Transformers: A Universal Approach To Point Cloud Processing Tasks
Kirill Mazur, Victor Lempitsky [project page, code]
Presents a new layer for 3D point clouds processing that achieved SoTA results on four various tasks.
*International Conference on Computer Vision (**ICCV**) 2021*

Experience

Samsung AI Center Jun. 2019 - Jul. 2021
Research Engineer at VIOLET (Virtual Human Telepresence) Lab
- Published 2 first (co-)author papers at a top computer vision venue (ICCV).
- "Cloud Transformers": Research on neural point cloud processing.
- "Point-Based Clothing Modeling": Research on neural 3D clothes modeling and its visual try-on.

Yandex Jun. 2018 - Sep. 2018
Intern ML Engineer at Computer Vision Lab
- Developed a model for Object Localization which reduced the response time by 75% and doubled a target product metric
- Adapted Tensorflow's object detection project for Yandex Infrastructure

Invited Talks and Academic Service

Reviewer
CVPR 2024, ICRA 2023-2024

Rank Symposium: Neural Rendering in Computer Vision Aug. 2022
"Feature-Realistic SLAM" invited talk

Imperial College London Spring 2023, Spring 2024
TA at Robotics course

Skolkovo Institute of Science and Technology Spring 2020
TA at Deep Learning course

Higher School of Economics / Yandex School of Data Analysis Sep. 2018 - Dec. 2019
Research seminar curator

Yandex School of Data Analysis (YSDA) Sep. 2018 - Jan. 2019
TA at Algorithms and Data Structures course