

MARIA KOROSTELEVA

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EDUCATION

Doctor of Philosophy

Korea Advanced Institute of Science and Technology (KAIST)

Specialization: Computer Graphics; Advisor: Sung-Hee Lee

Feb. 2018–Aug. 2022

Daejeon, South Korea

Specialist in Mathematics and System Programming

Lomonosov Moscow State University (MSU)

Graduated with Honors (GPA 4.0)

Specialization: Information Security; Advisor: Dennis Gamayunov

Sept. 2010–Jun. 2015

Moscow, Russia

PUBLICATIONS

- **Korosteleva, M.** and Sorkine-Hornung, O. (2023) GarmentCode: Programming Parametric Sewing Patterns. *ACM Trans. on Graph.*, Volume 42, Issue 6 [[Project Page](#)] [[Demo](#)] [[GitHub](#)] [SIGGRAPH Asia 2023, Journal Track]
- **Korosteleva, M.** and Lee, S.-H. (2022) NeuralTailor: Reconstructing Sewing Pattern Structures from 3D Point Clouds of Garments. *ACM Trans. on Graph.*, Volume 41, Issue 4 [[Arxiv](#)] [[ACM DL](#)] [[GitHub](#)] [SIGGRAPH 2022, Journal Track]
- **Korosteleva, M.** and Lee, S.-H. (2021), Generating Datasets of 3D Garments with Sewing Patterns. *NeurIPS 2021 Datasets and Benchmarks Track* [[OpenReview](#)] [[Dataset](#)] [[GitHub](#)]
- Bang, S., **Korosteleva, M.** and Lee, S.-H. (2021), Estimating Garment Patterns from Static Scan Data. *Computer Graphics Forum*. [[Link](#)][[GitHub for my contribution](#)]

EXPERIENCE

Postdoctoral Researcher

IGL at ETH Zurich

From Sept. 2022

Switzerland

- In collaboration with Prof. Dr. Olga Sorkine-Hornung
- Working on an advanced 3D garment modeling system
- Teaching duties: TA for Linear Algebra, Shape Modeling; Supervision of Semester projects

Research Assistant

Lifelike Avatar & Agent Lab, KAIST

Feb. 2018–Aug. 2022

Daejeon, South Korea

- Contributing to the Lab research projects on realistic virtual avatars for humans
- Utilized numerical optimization and Deep Learning methods for 3D shape analysis.

Research Intern at Reality Labs Research

Meta Platforms, Inc.

Aug. 2021–Dec. 2021

Remote, UK

- Formulated and implemented an innovative solution for segmentation of 3D volumetric data using Deep Learning-based CV methods; Suggested and implemented novel evaluation metrics.
- Started with minimal experience in CV but finished with the model that produces highly accurate segmentation results.
- Clearly presented my ideas and results to the teams of diverse backgrounds (HW, SW, AI).

Student Lab Manager*Lifelike Avatar & Agent Lab, KAIST*

Feb. 2021–Aug. 2021

Daejeon, South Korea

- Initialed and prepared the launch of Lab internal portal for sharing knowledge, policy, events, and equipment information.

Tester (QA Specialist) at Backend core and call-center tools team**Senior Tester from May 2017***Tutu.ru, online travel agency*

Oct. 2015–Feb. 2018

Moscow, Russia

- Helped to develop critical projects; trained newcomers; developed and supported autotests.
- Received an early promotion to the Senior Tester position as a recognition of my achievements.

SKILLS

Methodologies

Deep Learning; Numerical Optimization;

Programming Languages

Python; C++;

Libraries

PyTorch; libigl; Ceres-solver; OpenGL; OpenPose;

APIs

Qualoth API; Maya Python API;

Models[SMPL](#)**COMMUNITY SERVICE**

Invited Talks

From 2023

- NACHTAKTIV “SCIENCE CATWALK” (2023)
- Workshop - Computer Science for Girls (2023)

Reviewer

From 2022

- IEEE TVCG (2023)
- SIGGRAPH (2023)
- Computer Graphics Forum (2022-2023)
- NeurIPS Datasets and Benchmarks Track (2023)

Volunteer

2019-2022

- WiGRAPH 2022
- SIGGRAPH 2021
- SIGGRAPH Asia 2020
- Symposium on Computer Animation (SCA) 2019

HONORS AND AWARDS

CLO Award

2022

*KCGS**South Korea*

- CLO Virtual Fashion Inc. awards a distinguished paper on virtual garments presented during the Korean Computer Graphics Society Conference
- Awarded for the NeuralTailor project.

Special Ph.D. Scholarship

2018-2022

*KAIST**South Korea*

- Received it as an outstanding student by recommendation by Department Head.
- Awarded for the duration of the Ph.D. program.

KAIST Scholarship for International Students*KAIST*

2018-2022

South Korea

- Covering tuition fees for the duration of the program for the high profile admission portfolio.

Ist place at young scientists competition "Young School"*Positive Hack Days IV*

May 2014

Moscow, Russia

- For the research project "Enabling Deniable Encrypted Group Communication."

Special Scholarship for outstanding students*Lomonosov Moscow State University (MSU)*

2013-2015

Moscow, Russia

- Awarded for high educational achievements (GPA 4.0, top 2% of student) throughout the educational course.
- Renewed every semester.

Government sponsorship of tuition*Lomonosov Moscow State University (MSU)*

2010-2015

Moscow, Russia

- Provided for pursuing a degree in a critical field (Computer Science) for my high results on the State Examination for High School students.

HOBBIES

Ballroom Dancing and Travel