MARIA KOROSTELEVA

korosteleva.com ◇ GitHub ◇ LinkedIn ◇ Google Scholar

EDUCATION

Doctor of Philosophy — Feb. 2018–Aug. 2022
Korea Advanced Institute of Science and Technology (KAIST) — *Daejeon, South Korea*

Specialization: Computer Graphics; Advisor: Sung-Hee Lee

Specialist in Mathematics and System Programming — Sept. 2010–Jun. 2015
Lomonosov Moscow State University (MSU) — *Moscow, Russia*

Graduated with Honors (GPA 4.0)
Specialization: Information Security; Advisor: Dennis Gamayunov

PUBLICATIONS

- Qi, A., Pietroni, N., **Korosteleva, M.**, Sorkine-Hornung, O. and Bousseau, A. (2025). Rags2Riches: Computational Garment Reuse. *SIGGRAPH 2025 (Conference track)* [Project Page][GitHub]
- Nakayama, K., Ackermann, J., Kesdogan, T. L., Zheng, Y., **Korosteleva, M.**, Sorkine-Hornung, O., Guibas, J. L., Yang, G. and Wetzstein G. (2025). AIpparel: A Large Multimodal Generative Model for Digital Garments. *CVPR 2025* [Project Page] [ArXiv][Dataset][GitHub]
- **Korosteleva, M.**, Kesdogan, T. L., Kemper, F., Wenninger, S., Koller, J., Zhang, Y., Botsch, M., and Sorkine-Hornung, O. (2024). GarmentCodeData: A Dataset of 3D Made-to-Measure Garments With Sewing Patterns. *ECCV 2024* [Project Page] [Dataset]
- **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.* [Paper][GitHub for my contribution]

EXPERIENCE

Computer Graphics Scientist — From Oct. 2024
Meshcapade GmbH — *Remote, Germany*

- Automated apparel design at scale for synthetic data generation

Postdoctoral Researcher — Sept. 2022–Sept. 2024
IGL at ETH Zurich — *Zurich, 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 — Feb. 2018–Aug. 2022
Lifelike Avatar & Agent Lab, KAIST — *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 Aug. 2021–Dec. 2021
Meta Platforms, Inc. *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 Feb. 2021–Aug. 2021
Lifelike Avatar & Agent Lab, KAIST *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 Oct. 2015–Feb. 2018
Tutu.ru, online travel agency *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; XPBD cloth simulation
Programming Languages	Python; C++;
Libraries	NVidia Warp; PyTorch; libigl; Ceres-solver; OpenGL; OpenPose;
APIs	Qualoth API; Maya Python API;
Models	SMPL

COMMUNITY SERVICE

Invited Talks From 2023

- ETH Orientation Days, representing D-INFK (Sept 2024)
- NACHTAKTIV “SCIENCE CATWALK” (Nov 2023)
- Workshop - Computer Science for Girls (Sept 2023)

Reviewer From 2022

- ACM SIGGRAPH (2025)
- SIGGRAPH Asia (2024)
- ACM SIGGRAPH (2024)
- Eurographics (2024)
- IEEE TVCG (2023-2025)
- ACM 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 2018-2022
KAIST *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" May 2014
Positive Hack Days IV *Moscow, Russia*

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

Special Scholarship for outstanding students 2013-2015
Lomonosov Moscow State University (MSU) *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 2010-2015
Lomonosov Moscow State University (MSU) *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