Artem Sevastopolsky

Moscow, Russia

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Education

2019–Present **Ph.D. in Computer Science (pursuing degree)**,
Skolkovo Institute of Science and Technology,
Faculty of Data Science,
Computer Vision Group,
Short-term research topic: *Relightable Rendering of 3D Models*
Advisor: *Victor Lempitsky* (personal page).

2017–2019 **Master of Computer Science (with highest honors)**,
Skolkovo Institute of Science and Technology,
Faculty of Data Science,
Computer Vision Group,

GPA – 5.00 / 5.00,
Thesis: *Learning image deformations via deep learning*
Advisor: *Victor Lempitsky* (personal page).

2013–2017 **Bachelor of Computer Science (with highest honors)**,
Lomonosov Moscow State University,
Faculty of Computational Mathematics and Cybernetics,
Mathematical methods of forecasting,

GPA – 4.87 / 5.00.
Thesis: *Glaucoma detection methods based on deep neural networks*
Advisor: *Alexander D'yakonov* (personal page)

Work Experience

01/19 — Present **Engineer**, Samsung AI Center Moscow, Moscow, Russia.
- Currently involved in a neural avatar relighting project.
- Worked on a neural point-based rendering algorithm (accepted to ECCV'20). Captured a specific dataset of fixed-pose people required for this work.
- Was involved in an AR virtual avatar project.
- Worked on human body image resynthesis from unseen camera positions.
- Was investigating an ununsual approach to image inpainting based on image deformations.

06/18 — 01/19 **Assistant Engineer**, Samsung AI Center Moscow, Moscow, Russia.
- Developed a technique for learning of image warpings for face/body rotation.
- Co-authored a paper on body resynthesis in new poses (accepted to CVPR'19).

01/2017 — — 05/2018 **Deep Learning Engineer**, Youth Laboratories, Moscow, Russia.
Worked as an R&D engineer on several medical imaging projects.
- Main researcher and developer of wrinkles analysis project.
- Researcher and developer of the recommendational system for skin aging.
- Co-organized the Skinhack 2.0 hackathon (Nov 2017).

Research was funded and supervised by Nivea (Beiersdorf AG), Hamburg, Germany.

07/2016 — — 09/2016 **Deep Learning Intern**, Artec 3D, Moscow, Russia.
Performed facial recognition on RGBD data from Artec 3D scanners. Developed algorithms for facial landmark detection on RGBD data intented for better handling of occluded and rotated faces.

07/2015 — — 10/2015 **Software Developer**, Open Capital LLP, Moscow, Russia.
Developed software for processing of large data sets of sentiment data for backtesting of high frequency trading strategy.

Publications

2020 **Neural Point-Based Graphics.**
Aliev K.-A., Sevastopolsky A., Kolos M., Ulyanov D., Lempitsky V.
To be published in the *Proceedings of the IEEE European Conference on Computer Vision (ECCV). 2020.*
(pdf) (project page) (GitHub) (YouTube)

2019 **Coordinate-based Texture Inpainting for Pose-Guided Human Image Generation.**
Grigorev A., Sevastopolsky A., Vakhitov A., Lempitsky V.
Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR). 2019.
(pdf) (project page)

2019 **Accuracy of computer-assisted vertical cup-to-disk ratio grading for glaucoma screening.**
Blake M Snyder, Sang Min Nam, Preeyanuch Khunsongkiet, Sakarin Ausayakhun, Thidarat Leeungurasatien, Maxwell R Leiter, Artem Sevastopolsky, Ashlin S Joye, Elyse J Berlinberg, Yingna Liu, David A Ramirez, Caitlin A Moe, Somsanguan Ausayakhun, Robert L Stamper, Jeremy D Keenan
PloS one 14.8 (2019): e0220362.
(html)

2018 **Stack-U-Net: Refinement Network for Image Segmentation on the Example of Optic Disc and Cup**.
Sevastopolsky A., Drapak S., Kiselev K., Snyder B., Keenan J., Georgievskaya A.
Proceedings of Medical Imaging 2019. International Society for Optics and Photonics, 2019.
(pdf)

2018 **PhotoAgeClock: deep learning algorithms for development of non-invasive visual biomarkers of aging.**
Bobrov E., Georgievskaya A., Kiselev K., Sevastopolsky A., Zhavoronkov A., Gurov S., Rudakov K., Del Pilar Bonilla Tobar M., Jaspers S., Clemann S.
Aging (Albany NY) 10.11 (2018): 3249.
(pdf)

2017 **Optic disc and cup segmentation methods for glaucoma detection with modification of U-Net convolutional neural network**
Sevastopolsky A.
Pattern Recognition and Image Analysis 27 (2017), no. 3, 618–624.
(arXiv) (GitHub)

Public Talks

2020 TA at Deep Learning course at Skoltech. Gave 3 seminars, delivered a problem set, mentored 5 capstone projects, participated in the course organization.

2019 Talk "Coordinate-based Texture Inpainting for Pose-Guided Human Image Generation" at Samsung Best Paper Award 2019 internal event, Seoul, South Korea

2019 Talk "Coordinate Texture: Redressing and Pose Change for Human Images" at DataFest Meetup, Moscow, Russia (in Russian) (youtube) (presentation)

2019 Poster "Coordinate-based Texture Inpainting for Pose-Guided Human Image Generation" at CVPR 2019, Long Beach, CA, US (pdf)

2017 Poster "Glaucoma Detection with W-Net Neural Network" at NVIDIA GPU Technology Conference Europe 2017, Munich, Germany (pdf)

2017 Poster "Glaucoma Detection with Deep Neural Networks" at MACHINES CAN SEE summit, Moscow, Russia (pdf)

Languages

English Fluent

Russian Native

Links to social profiles

Personal website https://seva100.github.io

Google Scholar https://scholar.google.com/citations?hl=en&user=fTSCTYQAAAAJ

GitHub https://github.com/seva100

Facebook https://www.facebook.com/profile.php?id=100006505606156

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