





Ivan Skorokhodov

 <https://universome.github.io>
 iskorokhodov@gmail.com
 +7 (916) 630-64-65
 universome

Work experience

- Jun 2022 – **Research Intern**, *Snap Inc.*, Los Angeles, United States.
Oct 2022
 - Built a 3D-aware image generator for in-the-wild data.
 - Supervised by [Sergey Tulyakov](#).
- Mar 2020–
now **CS PhD student**, *King Abdullah University of Science and Technology*, Thuwal, Saudi Arabia.
 - Built several GAN-based models for image/video/3D generation.
 - Took courses on computer graphics, GPU programming and machine learning.
 - Served as a teaching assistant on 3 deep learning courses.
 - Supervised by [prof. Peter Wonka](#).
- Feb 2018– **Deep Learning Researcher**, *Moscow Institute of Physics and Technology*, Moscow, Russia.
Mar 2020
 - Developed multi-point optimization strategy to explore loss surfaces of neural networks. It resulted into a [NeurIPS 2019 optimization workshop paper](#).
 - Built a text style transfer model by combining CycleGAN with Transformers. It was presented on art exhibitions in Moscow and Rio de Janeiro.
 - Served as a teaching assistant (+ gave 2 lectures) on the “Theoretical Deep Learning” course.
- Oct 2019– **Visiting Student**, *King Abdullah University of Science and Technology*, Thuwal, Saudi Arabia.
Dec 2019
 - Explored initialization/normalization techniques in the context of zero-shot learning and continual learning (supervised by [prof. Mohamed Elhoseiny](#)). It resulted into an [ICLR 2021 paper](#).
- Mar 2015– **Software Engineer**, *Yandex*, Moscow, Russia.
Oct 2016
 - Developed the offer card for <https://market.yandex.ru> (its front-end part), which has been viewed daily by more than 1 million of people.
 - Performed different infrastructure/devops tasks (deployment, unit/integration/stress tests, etc).
 - Implemented a lot of small product and infrastructure features for <https://market.yandex.ru> in js/node.js/css/xslt.
- Sep 2014– **Senior Software Engineer**, *Federal State Statistics Service*, Moscow, Russia.
Mar 2015
 - Built a web crawler for automatic dictionary generation: it parsed web pages on a specified topic, detected terms and definitions, categorized them, processed and saved into the database.
- Jan 2014– **Full-Stack Software Engineer**, *Brainarium*, Moscow, Russia.
Sep 2014
 - Built a kaggle-like platform with node.js + marionette.js stack and all the required infrastructure.

Education

- Mar 2020–
now **King Abdullah University of Science and Technology**, *Thuwal, Saudi Arabia*.
Visual Computing Center, PhD student, Computer Science. GPA: 3.92/4.
Supervisor: [prof. Peter Wonka](#).
- Sep 2018– **Yandex School of Data Analysis**, *Moscow, Russia*.
Jun 2021 M.S. equivalent, Data Analysis in Applied Sciences. GPA: 4.77/5.
Thesis: Normalization Matters in Zero-Shot Learning.
Supervisor: [prof. Ilya Muchnik](#)
- Sep 2014– **Moscow Engineering Physics Institute (MEPhI)**, *Moscow, Russia*.
Jul 2016 M.S., Applied Informatics. GPA: 4.78/5.
Thesis: Product Search Ranking with Neural Networks.
Supervisor: [prof. Anna Tikhomirova](#).
- Sep 2010– **Moscow Engineering Physics Institute (MEPhI)**, *Moscow, Russia*.
Jul 2014 B.S. (with honors), Innovative Management. GPA: 4.88/5
Thesis: Software Development Management Systems.
Supervisor: [prof. Igor Prokhorov](#)

Selected publications

- Jun 2022 **EpiGRAF: Rethinking training of 3D GANs**, *NeurIPS 2022*.
Ivan Skorokhodov, Sergey Tulyakov, Yiqun Wang, Peter Wonka
[\[paper\]](#) [\[website\]](#) [\[code\]](#)
- Nov 2021 **StyleGAN-V: A Continuous Video Generator with the Price, Image Quality and Perks of StyleGAN2**, *CVPR 2022*.
Ivan Skorokhodov, Sergey Tulyakov, Mohamed Elhoseiny
[\[paper\]](#) [\[website\]](#) [\[code\]](#)
- Oct 2021 **Aligning Latent and Image Spaces to Connect the Unconnectable**, *ICCV 2021*.
Ivan Skorokhodov, Grigorii Sotnikov, Mohamed Elhoseiny
[\[paper\]](#) [\[website\]](#) [\[code\]](#)
- Jun 2021 **Adversarial Generation of Continuous Images**, *CVPR 2021*.
Ivan Skorokhodov, Savva Ignatyev, Mohamed Elhoseiny
[\[paper\]](#) [\[website\]](#) [\[code\]](#)
- May 2021 **Class Normalization for (Continual?) Zero-Shot Learning**, *ICLR 2021*.
Ivan Skorokhodov, Mohamed Elhoseiny
[\[paper\]](#) [\[website\]](#) [\[code\]](#)
- Dec 2019 **Loss Surface Sightseeing by Multi-Point Optimization**, “Beyond First Order Methods in ML” workshop, *NeurIPS 2019*.
Ivan Skorokhodov, Mikhail Burtsev
[\[paper\]](#) [\[website\]](#) [\[code\]](#)
- Mar 2018 **Semi-Supervised Neural Machine Translation with Language Models**, *AMTA workshop, ACL 2018*.
Ivan Skorokhodov, Anton Rykachevskiy, Dmitry Emelyanenko, Sergey Slotin, Anton Ponkratov
[\[paper\]](#) [\[code\]](#)

Awards

- June 2022 **Dean's List Award**, [KAUST CEMSE department](#), Thuwal, Saudi Arabia.
A \$2,500 award given to top students by [CEMSE division](#) for their academic achievements.

Talks

- June 2022 **Deep Generative Models over Continuous Data**, [Vision and AI seminar](#), [Weizmann Institute of Science](#), online.

Teaching experience

- Fall 2021 **Teaching assistant**, [King Abdullah University of Science and Technology](#), Thuwal, Saudi Arabia.
“Data-Efficient Deep Learning” course, taught by [prof. Mohamed Elhoseiny](#).
- Spring 2021 **Teaching assistant**, [King Abdullah University of Science and Technology](#), Thuwal, Saudi Arabia.
“Deep Generative Models” course, taught by [prof. Mohamed Elhoseiny](#).
- Fall 2020 **Teaching assistant**, [King Abdullah University of Science and Technology](#), Thuwal, Saudi Arabia.
“Data-Efficient Deep Learning” course, taught by [prof. Mohamed Elhoseiny](#).
- Fall 2019 **Teaching assistant**, [Moscow Institute of Physics and Technology](#), Moscow, Russia.
“Theoretical Deep Learning” course (part II), taught by [Evgeniy Golikov](#).
- Spring 2019 **Lecturer/Teaching assistant**, [Moscow Institute of Physics and Technology](#), Moscow, Russia.
“Theoretical Deep Learning” course (part I), taught by [Evgeniy Golikov](#).
My lecture notes on Information Bottleneck can be viewed [\[here\]](#).

Selected side projects

- Sep 2020– **RtRs** [\[github\]](#).
Dec 2020 Simple ray tracing and rasterization engine written in [rust](#). There are various features implemented: quadrics/mesh rendering, distributed ray tracing, camera movement, arcball controls, etc.
Dec 2020 **Gaussian Non-Uniform Interpolation** [\[github\]](#) [\[paper\]](#).
A CUDA kernel which is able to interpolate points on a non-uniform grid. This is done by representing each point as a 2D gaussian distribution.
Nov 2018– **Firelab** [\[github\]](#).
Aug 2020 Python framework for running pytorch experiments. Supports multi-gpu hyperparameters optimization, training class boilerplate, tensorboard logging, etc.
Oct 2016– **Aladdin** [\[github\]](#).
Mar 2017 A betting arbitrage bot written in [rust](#).
May 2016 - **Omniplan Web** [\[github\]](#).
Aug 2016 A web interface for [omniplan](#) platform written with [react.js](#).

Tech skills

- Coding python, rust, CUDA, C++, javascript
ML/DL libs torch, torchvision, tensorflow, sklearn, pandas, numpy
Miscellaneous docker, git, bash, \LaTeX

Hackathons awards

- Nov 2018 **Junction**, *SAP incentive award*, [Junction Team](#), Espoo, Finland.
Jun 2018 **BlockchainHack**, *1st place*, Blockchain Institute, Moscow, Russia.
Feb 2018 **Unsupervised Machine Translation**, *2nd place*, [MIPT](#), Dolgoprudny, Russia.
Aug 2017 **FunHack**, *some minor prize*, Science Guide, Moscow, Russia.
Nov 2016 **VK hackathon**, *1st place + people's choice award*, [VK](#), Saint-Petersburg, Russia.
Nov 2016 **BEM hackathon**, *1st place*, [Yandex](#), Moscow, Russia.