





# Ivan Skorokhodov

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 universome

## Selected publications

- 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  
[\[paper\]](#)

## Work experience

- Mar 2020–  
now **CS PhD student**, [King Abdullah University of Science and Technology](#), Thuwal, Saudi Arabia.  
I do my PhD under the supervision of [prof. Peter Wonka](#). My research interests include generative models, hypernetworks and neural rendering. I also have a small weakness on adversarial robustness.
- Feb 2018–  
Mar 2020 **Deep Learning Researcher**, [Moscow Institute of Physics and Technology](#), Moscow, Russia.  
Under the supervision of [Mikhail Burtsev](#), I was doing projects on text style transfer using Transformers and CycleGAN and loss landscape analysis using mode connectivity ideas.
- Oct 2019–  
Dec 2019 **Visiting Student**, [King Abdullah University of Science and Technology](#), Thuwal, Saudi Arabia.  
I was working on a project to combine zero-shot learning and continual learning under the supervision of [prof. Mohamed Elhoseiny](#). This project later resulted into our [Class Normalization](#) ICLR 2021 paper.
- Mar 2015–  
Oct 2016 **Software Engineer**, [Yandex](#), Moscow, Russia.  
I was doing traditional software engineering for <https://market.yandex.ru> (front-end, mostly) + some corresponding infrastructure work (deployment, unit/integration/stress tests, etc).
- Sep 2014–  
Mar 2015 **Senior Software Engineer**, [Federal State Statistics Service](#), Moscow, Russia.  
I 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–  
Sep 2014 **Full-Stack Software Engineer**, [Brainarium](#), Moscow, Russia.  
I 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. Mohamed Elhoseiny](#).
- Sep 2018–  
Jul 2021 **Yandex School of Data Analysis**, *Moscow, Russia*.  
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: Igor Prokhorov, P.h.D.

## Teaching experience

- 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 **Teaching assistant + Lectures on Information Bottleneck**, *Moscow Institute of Physics and Technology*, Moscow, Russia.  
 “Theoretical Deep Learning” course (part I), taught by Evgeniy Golikov.  
 My lecture lectures on Information Bottleneck can be viewed [here](#).

## Selected pet 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 view 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,  $\text{\LaTeX}$

## Hackathons performance

- 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.