Ivan Skorokhodov

🔗 https://universome.github.io
✉ iskorokhodov@gmail.com
📱 +7 (916) 630-64-65
🐙 universome

Selected publications

Nov 2021   **StyleGAN-V: A Continuous Video Generator with the Price, Image Quality and Perks of StyleGAN2**, *preprint*.
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]

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– Jul 2016	**Moscow Engineering Physics Institute (MEPhI)**, *Moscow, Russia*. M.S., Applied Informatics. GPA: 4.78/5. Thesis: Product Search Ranking with Neural Networks. Supervisor: prof. Anna Tikhomirova.
Sep 2010– Jul 2014	**Moscow Engineering Physics Institute (MEPhI)**, *Moscow, Russia*. 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– Dec 2020	**RtRs** [github]. 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– Aug 2020	**Firelab** [github]. Python framework for running pytorch experiments. Supports multi-gpu hyperparameters optimization, training class boilerplate, tensorboard logging, etc.
Oct 2016– Mar 2017	**Aladdin** [github]. A betting arbitrage bot written in rust.
May 2016 - Aug 2016	**Omniplan Web** [github]. 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, 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.