



# Alexander Smirnov

- May 21, 1999
- Saint Petersburg, Russia
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## Languages

- Russian
- English

## Working Experience

- 05.2021 – now  
6 months  
**Data Scientist** Ten Square Games  
Researching & implementing in-game items recommendations.  
Churn prediction.  
`python` `recommender systems` `mlflow` `A/B test`
- 08.2020 – 04.2021  
8 months  
**Machine Learning Engineer** yarus.ru, startup  
Researching, evaluating and ensembling different approaches for building news & videos recommender systems.  
Extracting training data from logs. Inventing new logs to collect.  
Solving problems such as cold start, data sparsity, instant users' actions influence on further recommendations.  
Deploying solution to production using microservice architecture.  
`python` `recommender systems` `matrix factorization`  
`microservices` `high load` `clickhouse` `redis` `S3` `mysql`  
`mongodb` `flask` `docker` `gitlab CI` `k8s`

## Internships

- 09.2019 – 12.2019  
4 months  
**Machine Learning Intern** JetBrains  
Predicting core properties (type, carbonate, ruin, saturation) using core samples images.  
Deep learning was used to detect properties; zones were highlighted using segmentation algorithms.  
`research` `python` `tensorflow` `CV` `segmentation`
- 07.2019 – 08.2019  
2 months  
**Machine Learning Intern** Belkasoft  
Collecting data and train algorithm to find pictures that contain circles and arrows on them.  
`python` `tensorflow` `CV` `object detection` `C#`

## Education

### Study

- 2021 – now  
**Master's degree** Moscow Institute of Physics and Technology  
Artificial Intelligence
- 2017 – 2021  
**Bachelor's degree** Saint Petersburg State University  
Computer Software Engineering  
**Bachelor's thesis** Department of Information and Analytical Systems  
A hybrid approach for news recommender system using optimization methods  
**Coursework thesis** Department of Information and Analytical Systems  
Automatic core samples classification
- 2014 – 2017  
**Secondary education** Physics and Mathematics Lyceum No. 239  
Best Physics and Mathematics Lyceum in Russia

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## Skills



Linux



▸ arch, i3, vim, zsh



Python



▸ pytorch, transformers

▸ nltk, gensim, surprise

▸ pycaret, optuna

▸ numpy, scikit-learn, matplotlib

▸ flask, fastAPI



Machine Learning



▸ RNNs, attention, transformer

▸ regression, trees, ensembles

▸ clustering,  
dimensionality reduction

▸ recommender systems,  
A/B testing

## Education

### Online courses

2021 – now	<b>Sequence Models</b> RNN, LSTM, GRU, attention mechanism	Coursera
2021 – now	<b>Stats for Data Analysis</b> A/B testing, correlation and dependence, statistical hypothesis testing, statistics	Coursera
2021	<b>Unsupervised Learning</b> Clustering, matrix factorization, topic modelling, outliers searching and visualizations	Coursera
2021	<b>Supervised Learning</b> Linear models, decision trees, ensembles, overfitting, evaluation	Coursera
2020	<b>Web Development for Beginners</b> Basics of web development	Stepik
2019	<b>Mathematics and Python</b> Mathematics and python libraries applied in data analysis	Coursera
2019	<b>Introduction to TensorFlow</b> Examples of how to work with TensorFlow library	Coursera

### Offline courses

2021	<b>Forum on Mathematics and AI</b> 5-day intensive forum filled with lectures on sota AI researches	MIPT
2016	<b>Student STAR Program-Russia CoE track</b> Project management course	EMC
2016	<b>Samsung IT School</b> Android development course	Samsung

### Books

2021	<b>The Lean Startup</b> Successful startup launching guideline	Eric Ries
2020	<b>Linux Fundamentals</b> Introduction to using Linux from the command line	Paul Cobbaut

## Projects

2021	<b>TrumpBot</b> Chatbot that pretends to be Donald Trump
2020	<b>Git Server</b> My own private git server hosted on raspberry pi
2020	<b>Tetris</b> Terminal tetris game for *nix operating system
2019	<b>Emoji Communicator</b> Visualizing text with emoji letters
2019	<b>Siamese Neural Networks</b> Implementation of siamese network for one-shot learning task
2019	<b>Classifying Browser Extension</b> Browser extension that allows you to classify site if it is suitable for children to watch
2019	<b>Android Meme Application</b> An android app that show memes depending on your preferences
2018	<b>Custom File Manager</b> Illustrates a bunch of programming patterns and optimization techniques

## Achievements

2021	<b>Winner</b> Artificial Intelligence track	I'm Professional
2021	<b>7.5</b> Academic Training	IELTS
2019	<b>2nd place</b> Program that help users to express themselves in chats	PhotoLab PhotoHack
2018	<b>Finals</b> Entertaining app	VK Hackathon
2017	<b>Winner</b> Russian math olympiad	Intercollegiate Math Competition

## Hackathons

2021	<b>MIPT Forum Hackaton</b> Classifying quiz questions if they written by professionals or not	Moscow
2020	<b>TrudHack 2</b> CV parser	Saint Petersburg
2019	<b>Tender Hack.Spb</b> Search algorithm	Saint Petersburg
2019	<b>PhotoLab PhotoHack</b> Program that help users to express themselves in chats	Veliky Novgorod
2019	<b>QuantNet</b> Trading algorithm	Saint Petersburg
2019	<b>SPbU GameJam 2019</b> Game	Saint Petersburg
2018	<b>VK Hackathon</b> Entertaining app	Saint Petersburg