



# Alexander Smirnov

- May 21, 1999
- Russia, Saint Petersburg
- SmirnovAlexander
- ru.alexander.smirnov@gmail.com
- @furioustebag
- +79119727982

## Languages

- Russian ● ● ● ● ●
- English ● ● ● ● ●

## Working Experience

08.2020 – now  
8 months

**Recommender Systems Engineer** IT Service, 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

2017 – now

**Bachelor Studies** Saint Petersburg State University

Software and Administration of Information Systems, Department of Information and Analytical Systems

**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

# Alexander Smirnov

## Skills

	Linux	<div><div></div><div></div><div></div><div></div></div>
	▸ arch, i3	
	▸ vim, zsh	
	Python	<div><div></div><div></div><div></div><div></div></div>
	▸ scikit-learn, matplotlib	
	▸ nltk, gensim	
	▸ tensorflow	
	▸ surprise	
	▸ flask	
	▸ jupyter notebook	
	Recommender Systems	<div><div></div><div></div><div></div><div></div></div>
	▸ collaborative filtering	
	▸ content-based filtering	
	▸ session filtering	
	▸ cold start	
	▸ matrix factorization	
	Machine Learning	<div><div></div><div></div><div></div><div></div></div>
	▸ supervised learning	
	▸ clustering	
	▸ dimensionality reduction	
	▸ data visualization	
	▸ EDA	
	Development	<div><div></div><div></div><div></div><div></div></div>
	▸ gitlab, CI / CD	
	▸ k8s	
	▸ microservices	
	DBMS	<div><div></div><div></div><div></div><div></div></div>
	▸ MySQL	
	▸ MongoDB	
	▸ ClickHouse	
	▸ Redis	
	▸ Amazon S3	
	▸ Oracle	
	Web Development	<div><div></div><div></div><div></div><div></div></div>
	▸ HTML, CSS, JS	
	▸ JQ, AJAX, bootstrap	
	.NET	<div><div></div><div></div><div></div><div></div></div>
	▸ C#	
	▸ F#	
	Multi-agent Systems	<div><div></div><div></div><div></div><div></div></div>
	Java	<div><div></div><div></div><div></div><div></div></div>
	▸ android development	
	C++	<div><div></div><div></div><div></div><div></div></div>

## Education

### Online courses

2021 – now	<b>Finding Structure in Data</b>	MIPT
	Clustering, matrix factorization, topic modelling, outliers searching and visualizations	
2020 – now	<b>Introduction to Recommender Systems</b>	University of Minnesota
	Non-Personalized and Content-Based recommenders	
2020 – now	<b>Algorithms. Theory and Practice. Methods</b>	Computer Science Center
	Algorithms introduction	
2020 – now	<b>Programming in C++</b>	Computer Science Center
	Main concepts of C++	
2021	<b>Training on Labeled Data</b>	MIPT
	Supervised learning models: linear models, decision trees, models composition	
2020	<b>Web Development for Beginners</b>	ITC
	Basics of web development	
2019	<b>Mathematics and Python for Data Analysis</b>	MIPT
	Refresh mathematics knowledge applied in data analysis and review python libraries that are related	
2019	<b>Introduction to TensorFlow</b>	deeplearning.ai
	Examples of how to work with TensorFlow library	

### Offline courses

2021	<b>Forum on Mathematics and AI</b>	MIPT
	5-day intensive forum filled with lectures on sota AI researches	
2016	<b>Student STAR Program-Russia CoE track</b>	EMC
	Project management course	
2015 – 2016	<b>Samsung IT School</b>	Samsung
	Android development course	

### Books

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

## Projects

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
2018 – 2019	<b>Android Meme Application</b> An android app that show memes depending on your preferences
2018 – 2019	<b>Custom File Manager</b> Illustrates a bunch of programming patterns and optimization techniques

## Achievements

2019	<b>2nd place</b>	PhotoLab PhotoHack
2018	<b>Finals</b>	VK Hackathon

## Hackathons

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