Alexander Smirnov

- May 21, 1999
- Russia, Saint Petersburg
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Languages

🇷🇺	Russian	● ● ● ● ●
🇬🇧	English	● ● ● ● ○

Working Experience

08.2020 – now
5 months

Recommender systems engineer — IT Service, startup

Researching different approaches for builiding news & videos recommender systems and deploying them to production.
These modules were researched, written, deployed and unioned into hybrid recommender:

- Collaborative filtering
- Content-based filtering
- Session filtering
- Popularity filtering

Microservice architecture was used.

`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 segmentaion.

`python` `CV`

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` `CV` `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

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Skills ━━━━━━━━

🐧 **Linux** ● ● ● ○
  ▸ arch, i3
  ▸ vim, zsh

🐍 **Python** ● ● ● ○
  ▸ numpy, scipy, matplotlib
  ▸ scikit-learn, tensorflow
  ▸ surprise
  ▸ flask
  ▸ jupyter notebook

👍 **Recommender systems** ● ● ● ○
  ▸ collaborative filtering
  ▸ content-based filtering
  ▸ session filtering
  ▸ cold start
  ▸ matrix factorization

⚙ **Machine learning** ● ● ○ ○
  ▸ supervised learning
  ▸ clustering
  ▸ dimensionality reduction
  ▸ data visualization
  ▸ EDA

</> **Development** ● ● ○ ○
  ▸ gitlab, CI / CD
  ▸ k8s
  ▸ microservices

🗄 **DBMS** ● ● ○ ○
  ▸ MySQL
  ▸ MongoDB
  ▸ ClickHouse
  ▸ Redis
  ▸ Amazon S3
  ▸ Oracle

🌐 **Web development** ● ● ○ ○
  ▸ HTML, CSS, JS
  ▸ JQ, AJAX, bootstrap

⊞ **.NET** ● ● ○ ○
  ▸ C#
  ▸ F#

Multi-agent systems ● ● ○ ○

☕ **Java** ● ○ ○ ○
  ▸ android development

C++ ● ○ ○ ○

Education

Online courses

2020 – now	**Introduction to Recommender Systems**	University of Minnesota
	Non-Personalized and Content-Based recommenders.	
2020 – now	**Algorithms. Theory and practice. Methods**	Computer Science Center
	Algorithms introduction.	
2020 – now	**Programming in C++**	Computer Science Center
	Main concepts of C++.	
2020 – now	**Training on labeled data**	MIPT
	Supervised learning models: linear models, decision trees, models composition.	
2020	**Linux Fundamentals**	Paul Cobbaut
	Introduction to using Linux from the command line.	
2020	**Web development for beginners**	ITC
	Basics of web development.	
2019	**Mathematics and python for data analysis**	MIPT
	Refresh mathematics knowledge applied in data analysis and review python libraries that are related.	
2019	**Introduction to TensorFlow**	deeplearning.ai
	Examples of how to work with TensorFlow library.	

Offline courses

2016	**Student STAR Program-Russia CoE track**	EMC
	Project management course.	
2015 – 2016	**Samsung IT School**	Samsung
	Android development course.	

Books

2021	**The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses**	Eric Ries

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Projects

2020	**Git server**	
	My own private git server hosted on raspberry pi.	
2020	**Tetris**	
	Terminal tetris game for *nix operating system.	
2019	**Emoji communicator**	
	Visualizing text with emoji letters.	
2019	**Siamese Neural Networks**	
	Implementation of siamese network for one-shot learning task.	
2019	**Classifying browser extension**	
	Browser extension that allows you to classify site if it is suitable for children to watch.	
2018 – 2019	**Android meme application**	
	An android app that show memes depending on your preferences.	
2018 – 2019	**Custom file manager**	
	It illustrates a bunch of programming patterns and optimization techniques.	

Achievements

2019	**2nd place**	PhotoLab PhotoHack
2018	**Finals**	VK Hackathon

Hackathons

2020	**TrudHack 2**	Saint Petersburg
	CV parser	
2019	**Tender Hack.Spb**	Saint Petersburg
	Search algorithm	
2019	**PhotoLab PhotoHack**	Veliky Novgorod
	Program that help users to express themselves in chats	
2019	**QuantNet**	Saint Petersburg
	Trading algorithm	
2019	**SPbU GameJam 2019**	Saint Petersburg
	Game	
2018	**VK Hackathon**	Saint Petersburg
	Entertaining app	