



# Boris Shminke

Machine Learning  
Researcher/Engineer



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## About me

I'm an ML and big data professional with 10+ years of experience. I'm currently interested in applications of AI with a focus on reinforcement learning and graph-neural networks. I'm Russian with a French residence and work permit.

## Languages

English - full proficiency  
French - limited proficiency  
Russian - native

## Technologies

Machine Learning

- reinforcement learning (Ray)
- deep learning (PyTorch)
- recommender systems

Data Engineering

- Apache Spark, Kafka, Hadoop
- Oracle, Teradata, SAS
- pandas

DevOps

- Docker
- CircleCI, AppVeyor
- Google Cloud Platform

Team work: git, Scrum, Kanban

Python: numpy, scipy, sklearn, Jupyter

Other DBs: PostgreSQL, Vertica, MongoDB

## education

Ph.D. (mathematics)

10.2020-09.2023

Université Côte d'Azur

Thesis title: *Applications of AI to study of finite algebraic structures and automated theorem proving*

M.Sc. (applied mathematics)

09.2003-03.2009

Moscow Aviation Institute (National Research University)

Thesis title: *Application of critical cases theory to stabilization problems with incomplete information*

## experience

French National Centre for Scientific Research (CNRS)

10.2020-09.2023

PhD candidate

developed a collection of OpenAI Gym environments for provers  
wrote a Python client to Isabelle proof assistant server  
automatically solved an open research question in abstract algebra  
created and taught Master courses on distributed big data and recommender systems

Largest Russian bank (Sberbank)

11.2018-09.2020

team lead in the AI R&D unit

built a financial news recommender for a mobile app with 40M users  
created and maintained a recommender systems library  
hired and supervised a team of ML Researcher Engineers

Online cinema with 30M users (ivi.ru)

11.2015-10.2018

big data team lead

applied model-based movie recommendations to improve CTR  
maintained the recommender serving over 1000 requests per sec.  
hired and supervised a team of ML Engineers

One of the largest Russian learning platforms (netology.ru)

12.2017-07.2018

part-time instructor&content creator

created and taught a course on recommender systems

Top-30 Russian bank (TRUST)

09.2014-10.2015

senior risk analyst

core developer at a consumer credit automation project

Moscow office of an international consulting firm (Business & Decision, now part of Orange Group)

05.2014-09.2014

senior analyst for a project

successfully implemented a cross-sell model data pipeline project  
supervised a team of Data Engineers

Top-30 Russian banks (Binbank)

05.2013-05.2014

senior analyst

created BI dashboards for consumer credit scoring

Largest BI and Big Data Solutions provider in Russia (Glowbyte)

11.2010-04.2013

senior data engineer

built a data pipeline for an anti-fraud model  
supervised a team of Data Engineers

Leading Russian developer of IT solutions for air transport (IATVT)

08.2009-10.2010

programmer

financial reports automation

Russian ERP software developer (Comtec)

02.2008-08.2009

programmer

full stack development for financial reporting

Aerospace design studio (OKB Mars)

10.2006-12.2007

part-time engineer

programming numerical solutions of satellites motion equations

## certificates

Oracle PL/SQL Developer Certified Associate	2015
SAS Certified Advanced Programmer	2014
Oracle Database SQL Certified Expert	2013
Certificate in Advanced English (Cambridge ESOL)	2012
SAS Certified Base Programmer for SAS 9	2011

## additional info

In addition to my daytime job, I've contributed code to Apache Spark and Ray RLLib, among other open-source projects. Apart from coding, I enjoy hiking.