

# Ivan Dobrosovestnov

Middle ML engineer



✉ dobrosov1811@gmail.com

☎ +381-62-9381-667

🌐 [Github](#)

✉ @ivankot13

📍 Serbia, Belgrade

🌐 [Linkedin](#)

*"I love when my own work brings measurable benefits to the client. I want to develop in a cool team and share mutual experience with colleagues."*

## Experience

- **Middle ML engineer** (SIT Programming School) July 2022 - Present (Serbia, Belgrade)  
Leading projects and building out the ML Pipeline from scratch in R&D department (grooming task with clients, ETL process, deploying models to server, deploying a microservice into the core product).
- **Teacher and Methodist** (Moscow Programming School) 2020 - 2022 (Moscow, Russia)
  - Teaching a C++ and Python courses
  - Development of tasks for the inner olympiad and C++ course

## Education

- **Higher Education (Bachelor)** 2019 - 2023
  - Higher School of Economics University
  - Program: "Applied mathematics and Information Science"
  - Professional development program Management (760 hours)
  - GPA: 7.79 / 10
- **Secondary General Education** 2017 - 2019
  - Higher School of Economics Lyceum
  - Program: "Mathematics, Computer Science and Engineering"

## Skills

### Programming

- Python
- C++ / C

### Technologies

- Advanced ML approaches
- ML Optimization methods
- Recommendation models
- Computer Vision
- NLP
- Statistics
- Crowdsourcing
- Data analysis

### Frameworks

- Pytorch
- Hadoop, Spark
- SaaS
- Deploying:  
Jango, Git, CI/CD, Docker,  
Ansible, SQL, DVC, Linux

## Projects

- **Cheating Detection System**  
developed a system that detects abnormal behavior of students, such as cheating, misunderstanding of the material
  - US Patent "Method and system for classification of student progress in solving a complex problem" №18/175,551 (Filed Feb 28, 2023, on patent pendind)
  - US Patent "Method and system for automatically assigning a behavioral category to a student's study" №18/175,551 (Filed Feb 28, 2023, on patent pendind)

## Students Churn Prediction

developed an infrastructure for churn prediction analysis:

- building ML pipeline from scratch (EDA / ETL process / prediction model / deployment)
- NLP analysis of CRM tasks
- achieving 80% PR AUC score when predicting student's churn

## Students Knowledge Tracing

developed Transformer Encoder-Decoder model for Knowledge Tracing

- Paper "Profiling of Students' Competencies for Adaptive Learning Systems" (*bachelor's thesis*)

## Ivy Unify Contributor

developed `bessel_i1` function on tensorflow frontend

## Predicting clicks on contextual advertising

- leveraged Spark on HDFS for efficient processing and analysis of large-scale data.
- managed a vast dataset of 2 billion rows, merging tables and selecting relevant product categories for analysis
- conducted thorough Spark-based EDA to uncover user behavior patterns and product preferences
- engineered new features incorporating site category, external metrics, and user metadata to enhance predictive capabilities.
- trained Vowpal Wabbit on the processed data to establish a baseline model for further analysis.

## Segmentation of retail products in order to identify the dependence of demand on price

- explored a methodology for segmenting product/store pairs based on machine learning algorithms
- compared models of price elasticity demand, trained both without segmentation and with segmentation

## Crowdsourcing projects (School of Data Analysis)

- data partitioning and model building for license plate recognition
- data partitioning and classification for recognition of paraphrases in Yandex search engine