# Mark Andreev, Machine Learning Engineer

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Github: <u>mrk-andreev</u> **Development stack**:

- Data Processing. Spark, Cassandra, Hadoop, Kafka.
- Java. Spring: MVC, Data, AMQP, Kafka, Security, State machine, Apache Camel.
- PostgreSQL, MongoDB, RabbitMQ, Redis, Keycloak, Prometheus, Docker, Kubernetes, Airflow.
- Cloud. AWS: EC2, S3, RDS, CloudFront, SQS, SNS, Lambda, IAM, Registry; Azure: VM, Blob.
- Python. Pandas, Scikit-learn, Matplotlib, XGBoost, LightGBM, Catboost, Tornado, Flask, FastAPI.

Languages: Russian - native, English - upper intermediate

**Experience** 

**May 2017 - present (4+ years)** 

<u>Conundrum.AI</u>, Machine learning engineer

- Developed Machine learning lifecycle platform for Industrial Automation (on top of Kubernetes, Dynamic resource allocation. Java for orchestration, Python for serve models)
- Developed Incident Management service with custom workflow (on top of Spring State Machine)
- Developed Data Storage Service for sensors measurements (based on PostgreSQL, Clickhouse and Kafka)
- Developed end to end machine learning application for flight analysis
- Created ad hoc analysis for tabular, geo, textual data for customer needs
- Microservices based architecture

### **Contribution to Open Source.**

- Apache Ignite. Implemented target encoding preprocessor.
- Apache Ignite. Implemented Yandex Catboost inference integration.
- Apache Ignite. Implemented new distances (BrayCurtis, Canberra, JensenShannon etc).
- Apache Camel. Fix Azure Blob Storage and Azure Blob Queue interaction.
- Tornado Swagger. Swagger API Documentation builder for tornado server.

### **Education**

## **September 2016 - June 2018**

Lomonosov Moscow State University, Master of Applied Mathematics and Informatics.

Thesis: "NLP in macroeconomics monitoring".

#### **September 2012 - June 2016**

Moscow Power Engineering Institute (National Research University). Mathematical modeling. Thesis: "Face recognition".

### **Conferences/Public speech**

**February 2019.** "ML in production" at the FunTech ML-meetup.

May 2018. Volunteer Data Scientist at <u>EnduringNet</u> (founded by Ser-Huang Poon, prof Manchester University)

**July 2017.** Big Data approach to measure inflation expectations: the case of the Russian economy (IFABS 2017 Oxford Conference), Goloshchapova, I., & Andreev M.

May 2017. Measuring inflation expectations of the Russian population with the help of machine learning (Voprosy Economiki), Goloshchapova, I., & Andreev M.

### Certificates.

<u>AWS Well-Architected Training</u> / Deep Dive into <u>S3</u>, <u>Glacer</u>, <u>EFS</u> / <u>Deep Dive on Container Security</u> / <u>Redis for Java Developers</u> / <u>Triplebyte Certified Generalist Software Engineer</u>