

## Mark Andreev, Senior Software Engineer

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### Development stack:

- **Java.** Spring: MVC, Data, AMQP, Kafka, Security, State machine, Apache Camel.
  - PostgreSQL, MongoDB, RabbitMQ, Redis, Keycloak, Prometheus, Docker, Kubernetes, Airflow.
  - Spark, Cassandra, Hadoop, Kafka.
  - **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 (B2)

### Experience

#### **May 2017 - present**

[Conundrum.AI](#), 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

**May 2018.** Volunteer Data Scientist at [EnduringNet](#) (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 Ekonomiki), Goloshchapova, I., & Andreev M.