Alexander Andrew Shatalin, ML Engineer

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EXPERIENCE

RDX Labs, RTU MIREA

Sep 2022 - Jun 2024

ML Engineer & Data Analyst

- Researched LLMs to build MVP of the KBQA bot to help customer support, reducing waiting time by 40%
- Curated and managed datasets for a CV model with over 9000 airport pictures, leveraging Leaflet and Open Street Maps to train a CV model for airports recognition
- Created test tasks for new ML developers with comprehensive guidelines, increasing department size up to 100% annually
- Promoted within 6 months due to strong performance and organisational impact

HACKATHONS & COMPETITIONS

Digital Breakthrough & Burger King Hackathon

Nov 2023

• Engineered an ensemble of gradient boostings and performed feature engineering to predict churn rate with 72% accuracy at Digital Breakthrough & Burger King Hackathon, 2023; achieved top-7 finalist position among newcomers

CheckAI Hack Oct 2023

• Generated scientific papers using prompt engineering techniques; created a fully-automatic pipeline with over 200 topics and 10+ prompts.

Aeroclub Challenge May 2023

• Leveraged CatBoost grid search to tune catboost model's hyper parameters to find perfect tickets for clients using information about their order with macro F1 score of 0.69. Finalist, top-11

Sovcombank Team Challenge

Nov 2022

• Developed a web trading platform, applying Darts for time series predictions as an indicator for traders. Finalist, top-10

PROJECTS

Constructor of Linear Perceptrons

- Developed a library to build perceptrons with desired activation functions, depth, number of parameters and so on from scratch
- Provided methods to visualise training data and save and load models, achieving 90-100% accuracy on sklearn standard datasets

Stocks Prices Prediction

• Evaluated different architectures including LSTM, MLP and GBDT models along with yahoo finance price data of multiple assets to predict changes in the Bitcoin price, achieving MSE of 0.028

EDUCATION

RTU MIREA Sep 2021 - Present

Bachelor of Information Systems and Technologies

- Relevant courses: Linear Algebra, Analysis, Python Programming, Artificial Intelligence, Big Data, Applied Artificial Intelligence
- Leadership: being a member of the student union, supervised a group of first-year students, helping them adapt to university life

SKILLS

- Programming: Python, SQL, C++, C, JS, Git, Docker, DVC, Airflow, MLflow
- Machine Learning: k-means clustering, KNN, logistic and linear regressions, decision trees, random forest, gradient boosting, perceptrons, LSTM, transformers, ARIMA, models evaluation, TensorFlow, Pandas, Polars, PyTorch, Numpy, Keras, CatBoost, XGBoost, LightGBM, Sklearn
- Math: Analysis, Algebra, Linear Algebra, Statistics, Probability Theory