Nikita Osovskiy

ML Developer, Undergraduate Student

Saint Petersburg, Russia

+7 (996) 584-2188 n.s.osovskiy@gmail.com
t.me/nikitaosovskiy github.com/naelxd

Education

Saint Petersburg State University — Saint Petersburg, Russia
Bachelor's Degree in Big Data and Distributed Digital Platforms — *Sep 2022 – Present*

Deep Learning School by MIPT — Online
Linear models, decision trees, ensembles, introduction to neural networks — *Mar 2025 – May 2025*

Yandex ML Trainings — Online
Gradient boosting, unsupervised learning, deep learning (DL) — *Nov 2024 – Dec 2024*

Projects

Simulating Social Dynamics with LLM Agents — *Sep 2024 – Jun 2025*

- *NLP, LLM, Python, OpenAI API, Data Analysis*
- Built a simulation of rumor propagation among LLM agents: developed mechanisms for rumor generation, transmission, and influence tracking on social graph dynamics.
- Designed agent behavior models including dialogue rules, group interaction scenarios, and social influence logic, enabling emergent behavior in the simulation.
- Integrated LLMs (ChatGPT, LLaMA), optimized prompts, and implemented quality control and filtering for generated content.
- Visualized rumor propagation and social connection dynamics, identifying key behavioral patterns.
- Conducted a literature review of LLM-agent systems to justify architectural decisions and model choices.

Predicting Student Academic Performance — *Apr 2024*

- *Python, scikit-learn, XGBoost, NumPy, Pandas, Plotly*
- Engineered behavioral features from student activity data, improving model accuracy by 12%.
- Trained and evaluated multiple models (linear, Bagging, Boosting, KNN) using metrics such as MSE, Accuracy, Precision, and Recall.
- Analyzed lifestyle and learning style impact on academic success, identifying significant correlations.
- Tuned hyperparameters with Grid Search, improving model robustness and performance.

Real-Time Weapon Detection in Video Streams — *Feb 2024*

- *Python, TensorFlow, OpenCV, NumPy, Matplotlib*
- Developed a real-time weapon detection system using convolutional neural networks.
- Collected and labeled a custom dataset, increasing detection accuracy by 15% over the baseline model.
- Trained and optimized the model in TensorFlow, enhancing both precision and inference speed.

Skills

Programming Languages: Python, C++, SQL
Libraries and Tools: Scikit-learn, XGBoost, PyTorch, OpenCV, NumPy, Pandas, Matplotlib, Seaborn, Git, Linux, OpenAI API, Plotly
Core Competencies: Machine Learning, Natural Language Processing (NLP), Data Analysis, Data Visualization
Foundations: Algorithms and Data Structures, Linear Algebra, Calculus, Probability Theory, Mathematical Statistics, English (B2)