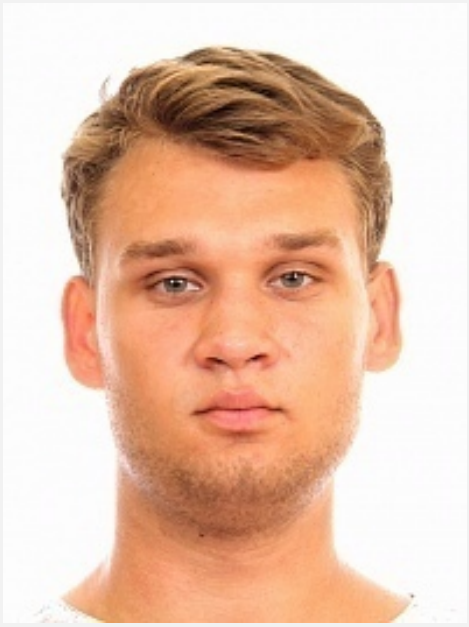

Nikita Lindemann

Python Backend Developer

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Skills

- Python
- REST API
- FastAPI
- Pytest
- Machine Learning
- Git
- Linux
- Docker
- SQL
- C++

Professional Profile

MIPT graduate with over 6 years of software development experience, including building machine learning models. Successfully executed end-to-end projects for video analytics systems, encompassing hardware procurement, development, and production support. Demonstrated success in productizing IT solutions based on machine learning, taking ML models beyond the MVP stage.

Backend: Designed and implemented high-performance REST APIs (FastAPI/Aiohttp). Hands-on experience with DBMS (PostgreSQL, ClickHouse), message brokers (Apache Kafka), NoSQL (Redis), and workflow orchestration (Celery, Temporal). Ensured code quality through comprehensive testing (pytest) and utilized monitoring tools (Sentry, Grafana, Vault, ArgoCD, Lens) for system observability.

DevOps: Containerized and deployed multi-service applications using Docker and docker-compose. Managed organization-wide source code in GitHub and built automated CI/CD pipelines in GitLab and GitHub. Handled operational tasks: configuring systemd services for DB backups, setting up SSL certificates, conducting basic security audits and load testing.

Proficient in Agile methodologies (Scrum, Kanban) and project management tools (Jira, Confluence) for effective team collaboration and project delivery.

Education

2023 — B.Sc. in Applied Mathematics and Physics
Moscow Institute of Physics and Technology (**MIPT**)
Department of Control and Applied Mathematics

Work Experience

2023-2026 — Software Engineer (ML/Backend). Cloud.ru

1. Contributed to the full product cycle of the DS Works platform: from generating feature hypotheses and A/B testing to user support and technical issue resolution.
2. Engineered the core competition infrastructure: configured championship pipelines, built ML workflows, and created isolated Docker environments for secure execution of user submissions.
3. Refactored and modernized the metrics calculation service for user submissions, migrating it to a low-code platform, which reduced development time for new metrics by an estimated 80%.
4. Successfully delivered over 30 large-scale hackathons and championships (including the annual international AI Journey Contest) with a cumulative prize pool exceeding $100M$ RUB, ensuring platform stability under high load.
5. Designed and launched 5 public industry benchmarks (Construction/Housing, Manufacturing, Transportation, Agriculture, Healthcare), expanding the platform's reach and applicability.
6. Designed, developed, and deployed a production-grade REST API for serving language models using FastAPI, Pydantic, PostgreSQL (with Alembic/SQLAlchemy), and Docker.
7. Owned the backend of the Evalution Notebook service (custom Jupyter environment), implementing new features, fixing bugs, and improving the developer experience.
8. Developed critical platform features including an auto-shutdown system for idle resources, scheduled notebook restarts, and a dynamic environment variables service, optimizing infrastructure costs and reliability.

2021-2023 — Python Developer / Computer Vision Engineer. GLOSAV

1. Led the development of core computer vision algorithms for classification, detection (object/face/vehicle), and multi-object tracking, directly contributing to the product's accuracy and reliability.

2. Spearheaded the end-to-end lifecycle of key video analytics modules: from R&D and model training to integration, deployment, and long-term production support.
3. Owned the development and optimization of mission-critical modules, including: License Plate Recognition, Vehicle Detection & Classification, Face Detection & Classification, Multi-Vehicle Tracking, LiDAR Data Capture Integration, and Vehicle Dimension Estimation.
4. Optimized and deployed Convolutional Neural Networks (CNN) to edge devices (NVIDIA Jetson, Firefly) using ONNX, TensorRT, and RKNN toolkits, achieving a 3-5x inference speedup while maintaining target accuracy.
5. Developed high-performance client-server applications and device control modules using asyncio, multithreading, and Flask. Designed scalable software architecture for core analytics modules.
6. Engineered low-level system integrations using IPC pipes and shared memory; created Python wrappers (ctypes) for $C++$ libraries to boost performance. Extensive Linux development and administration experience.
7. Established MLOps pipelines for model lifecycle management: deployment, configuration, and monitoring of production modules using systemd, Ansible, and SQL.
8. Developed and deployed a face detection and visitor counting system for VDNKh (Moscow's main exhibition center), handling peak loads of over $2,000$ people per hour with 99%+ uptime.
9. Engineered and launched an intelligent toll collection system for federal highways M1 and M4, processing over $5,000$ vehicles daily with high accuracy in all weather conditions.
10. Took on leadership responsibilities: authored technical specifications, delegated tasks to developers and engineers, and selected optimal hardware (mini-PCs, cameras, lenses, sensors, LiDARs). Led procurement processes and directly communicated with clients. Contributed to hiring and onboarding new team members.

2019-2021 Data Scientist. Intelligent Transport Laboratory, MIPT

1. Built and managed diverse datasets for computer vision tasks (object detection, classification, segmentation), including data collection, preprocessing, and manual annotation pipelines.
2. Developed and optimized deep learning models for road scene understanding, specifically for traffic light and road sign classification.
3. Actively participated in ML competitions (Kaggle, etc.) and contributed to organizing AI conferences and hackathons, staying at the forefront of industry trends.
4. Engineered a robust road scene object classification module that was successfully deployed in the "Winter City"autonomous vehicle competition, contributing directly to the team's 3rd place finish.