Danis Alukaev

LinkedIn | GitHub | Kaggle

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Deep Learning Engineer

Experienced R&D Engineer in Deep Learning with over two years of expertise in computer vision and natural language processing reinforcing corporate brand as innovative. Bringing interpretability to Machine Learning models, automatization through MLOps techniques, and unique hypotheses-driven workflow. Highly skilled in PyTorch / Hydra / ClearML and well-versed in statistical techniques.

Tech Skills

Languages	:	English (upper intermediate), Russian (native)
Programming	:	Python, C++, C, Java, qiskit, IBM Quantum
Deep Learning	:	PyTorch, Tensorflow, Adversarial Attacks & Defenses, Gradient Boosting, Hadoop, Spark
MLOps	:	ClearML, Weights & Biases, Hydra, Optuna, Captum
Databases	:	PostgreSQL, Oracle Database, SQLite, MongoDB, Neo4j
DevOps	:	AWS, Ansible, Docker, Terraform, K8s, GitHub Actions, Yandex Tank
Web	:	Django, Flask, aiohttp, aiogram, Celery, Gunicorn, nginx, RabbitMQ, Vue.js
Dev Tools	:	UNIX-like operating systems, Git

Soft Skills

Personal	:	Deep Focusing, Decisiveness
Working	:	Teamwork, Leadership, Branding/Visioning

Experience

AI Lab of Innopolis University Aug 2021– Present
Machine Learning Engineer *Innopolis, Russia*

- Leading research in Explainable AI (XAI) with Ivan Titov, top 10% highly-cited NLP scientist in the world.
- Published a research paper in European Spine Journal, #1 ranked scientific journal in clinical neurology (Q1 quartile).
- Designed novel hypotheses-driven workflow for research process adapted by 2 teams.
- Developed scalable deep learning framework *"spiner"* for spine MRI examination: exploring morphometry of vertebrae and intervertebral discs, measuring coronal and sagittal Cobb angles, classifying and segmenting osteoporosis on each vertebra.
- Implemented deep learning package *"purelung"* for chest X-ray pre-processing in industrial data pipeline: suppressing bone shadows, context-aware image crop, anatomy segmentation, and auto-inverse operation.

Education

Innopolis University 2019 – 2023
Computer Science, GPA: 4.91 *Innopolis, Russia*

Projects (5+)

Linguask *PyTorch, GitHub Actions* Source Code

- Fine-tuned large textual models and embeddings: BERT variants, ELMO, CNNs.
- Trained novel architectures for assessing natural language text by its syntax, grammar, vocabulary, etc.
- Applied quality ensuring techniques: CI/CD, MLOps, auto-generated documentation (see more in repo).

Doctorinna *Django, PostgreSQL, Docker, AWS, Nginx* Source Code

- Launched Django REST API determining the user's risk group for various diseases.
- Applied DevOps techniques to maintain a stable operating of service: CI/CD, load balancing, containerizaton, etc.
- Received personal recommendation from Lab Director in Huawei Yegor Bugayenko in his blog post.

Other projects could be provided on request