# **GERMAN LEONTIEV**

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## ABOUT ME

Machine Learning Engineer from Saint Petersburg. With my extensive work experience, I am poised to strengthen your team. My skill set in comprehensive data analysis and model development can be a valuable contribution to achieving your business objectives. I address business needs from refining requirements with clients to deploying models into production and optimizing neural networks.

#### **TECH SKILLS**

**ML** | pandas, numpy, scipy, cupy, matplotlib, sklearn, xgboost

**DL**, **CV**, **NLP** | pytorch, tensorflow, keras, opency, nltk, pymorphy2, transformers Backend | python, fastapi, uvicorn, flask, SQL

MLOps | docker, git, clearml, dvc, AWS S3

#### **EXPERIENCE**

#### Machine Learning Engineer @Webbee

#### ML-developement, ML-research

- Developed a predictive sales model prototype for a key client, resulting in a **15% increase** in sales forecast accuracy.
- Engineered modules to analyze audio and text communication among employees, incorporating sentiment analysis, toxicity detection, and negative sentiment tracking for our internal product, enhancing team collaboration and morale.
- Conducted ML research on a vast **1.2 TB** GitHub dataset, exploring data-driven insights and building machine learning models to extract valuable insights and drive informed decision-making.

#### Machine Learning Engineer @MStroy

Development of ML microservices

- Designed and implemented AI-powered virtual assistant "German" from scratch. Performed all stages of the project from clarifying bussiness requierements and selecting models to designing the application architecture, writing the API and releasing the service in production. Allowing platform UI and API access **17,000+ users**.
- Developed a microservice for extracting tabular data from construction drawings, which allowed automating the processing of more than **40,000 documents**.
- Wrote my own algorithm for searching a string in documents, which improved the data processing speed by **10 times**, and then transferred it to the GPU, speeding it up by **3 times**

#### **Freelance Machine Learning Engineer**

*Development of autonomous vehicle environment analysis modules* 

- Trained models for segmentation and detection of objects on the road scene on 2 TB of Audi dataset
- Converted the models to the TensorRT format, which allowed me to increase the speed of inference by 4 times and process 30 frames per second

Training of computer vision models for drones

- Collected the world's largest open dataset for detecting forest fires, consisting of **57 000** frames taken under various conditions
- I trained a model for detecting forest fires and made a web interface for video processing

### SCIENTIFIC EXPERIENCE

#### Machine Learning Biotech Researcher @AGNI University

Training models to predict the properties of materials before their synthesis

- Described a number of approaches to work with tabular data for the synthesis of materials for a scientific article
- Developed and trained a neural network to predict the behavior of MOF at different temperatures

#### EDUCATION

Peter the Great St.Petersburg Polytechnic University - Bachelor's degree: "Heat power engineering"

# August 2022 - May 2023

### Python | PyTorch | OpenCV | NLTK | FastAPI | Docker

# **December 2020 - July 2022**

#### Python | PyTorch | Tensorflow | Keras | TensorRT

Python | Tensorflow | PyTorch | OpenCV | Flask | Docker



#### **September 2022 - July 2023**

Python | PyTorch | Scikit Learn

# Python | PyTorch | OpenCV | NLTK | FastAPI | Docker

June 2023 - Now