SERGEEV DANIIL

NLP-engineer
Moscow

ABOUT ME

ML-engineer with more than 1 year of experience. I participate in hackathons on AI, trying to improve myself. I am interested in NLP.
Phone number: +7 (951) 108-77-53
E-Mail: daniil1706d@gmail.com
Telegram:@danilka200300
GitHub: DaniilSergeev17

EDUCATION

NUST MISIS, Institute of Computer Science, Bachelor in Applied Math Moscow, *2023-2027*
Deep Learning School from MIPT - Course about DL, CV, NLP *2023-2024*
Yandex School of Data Analysis - Course about NLP *2024*
Tinkoff Education ML/DL *2021 - 2022*

SKILLS

Computer Languages	Python, C++
Fields	NLP, Computer Vision, Classical ML
Hard skills	Pandas, NumPy, PyTorch, Lightning, Scikit-learn, OpenCV, Transformers, Gensim, NLTK
Tools	Git, Windows

EXPERIENCE - 3 month

XLabs-AI *June 2024 - now*
NLP Engineer

- I have developed a RAG system for a ClickHouse-based call center. I filtered the chat data, created question-answer databases, and divided the documents into chunks. Implemented a pipeline of ML API interaction with the backend, using RAG Fusion and G-eval techniques to detect hallucinations. For embeddings, I used multilingual-e5-large. Achieved local accuracy of MAP@5 = 0.89. The system solves 75% of user requests.
- I helped to implement an analogue of Perplexity. Designed and implemented a chart generation module based on the responses of an information retrieval agent on the Internet.
- Stack: pytorch, sentence-transformers, Docker, FastAPI, clickhouse, asyncio

ACHIEVEMENTS

Tatneft Techstorm Hackathon: A bot assistant for finding information, NLP *August, 2024*
3 place, *ML-engineer*

In the hackathon, we were required to create an assistant bot based on artificial intelligence for Tatneft. In the future, this bot should be connected to an internal knowledge base, but at the same time be able to collect data from the Internet. We tried a lot of RAG techniques but in final solution used RAG Fusion and serper as Google API. We have also collected own data as a base of knowledge. Also we used Vosk as a voice-to-text model. As a result, the model that was working in Telegram showed pretty good results.

IT PURPLE HACK: Forecasting the outflow of a salary client, Classical ML *March, 2024*
3 place, *DS, ML-engineer*

We selected the important features, since there were initially 1070 of them, and then we started feature engineering. The key to the solution was that we took the embeddings from the autoencoder, split them into clusters and added this as a feature. Finally, blending of catboost classifiers with stratification by target.

Talent-Match: comparison of resumes and vacancies, NLP *February, 2024*
2 place, *ML-engineer*

We parsed a HeadHunter and collected a large dataset to take keywords for improvements. In the solution, we used distil-roBerta to receive embeddings and a Siamese neural network with 2 branches. We made a good model, a core that gave Recall=0.8.

AI Energy Hackathon: Photo detection system for power lines defects, CV *December, 2023*
3 place, *ML-engineer*

Developed a solution based on the YOLOv8, which turned out to be the best. We trained and tried several detection models, but choose SAHI technology for inference. We were given very little data, but thanks to Roboflow we marked up and collected a big database of images in the size of 1800 pieces. As a result, the model showed pretty good results, detecting breakdowns at a great distance.