Andrei Panferov

ML Engineer

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Experience

Yandex *Moscow, Russia*

ML Engineer intern (NLP) *March 2022 - July 2022*

- Refactored and optimized an **LLM inference framework** enabling abstract *tabular data* insertion for efficient **Map-Reduce** inference
- Increased test coverage from **0 to 85%** through rigorous unit testing
- Took part in developing a *universal LLM benchmarking solution* adapting 2 datasets for it

Terra Quantum AG *Moscow, Russia*

Software Engineer *July 2020 - July 2022*

- Designed a framework for quantum circuit optimization using **Python**
- Analyzed experiment data and helped build models of quantum decoherence
- Benchmarked quantum algorithms for protein folding simulation

Awards

International Physics Olympiad *Israel*

Gold Medal *Summer 2019*

Education

Moscow Institute of Physics and Technology (MIPT) *Moscow, Russia*

Bachelor of Science in Physics and Math, GPA: 9.1/10.0 *2020 - 2024*

- Majoring in quantum physics and quantum computations

Yandex School of Data Analysis (YSDA) *Moscow, Russia*

Machine Learning Developer *2021 - 2023*

- General and specialized ML courses
- Collaborative research and open-source contributions

Projects

tensor_parallel

- A **python library** for tensor parallel **PyTorch** models training and inference. Tight inregration with **Hugging Face transformers**.
- Created under the supervision of **Yandex Research** researchers

NLP bot

- A Telegram **bot** with a fine-tuned **Language Model**, automatic **data collection** and preparation
- Easily deployable with **Docker compose**
- Full deployment with **Telegram API**, **backend** and **metrics**

Ray-tracer

- An almost **pure C++ ray-tracing** program
- Featuring CATCH2 **unit tests** and **GitHub-CI**

The cooler Ray-tracer

- The same ray-tracer but written in **Rust**

Neuromatch Academy Final Project *Summer 2021*

- Designed neural networks for calcium imaging **neuron activity** analysis
- **Convolutional network** for **time series** analysis