Aleksandr Kedrik

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Experience

Yandex, YandexGPT training infrastructure, Senior Software Engineer   Apr 2024 – present

- Sped up model checkpoint uploading during training 2x to make it possible to make checkpoints more often and lose less progress after hardware failures.
- Wrote a tool for benchmarking different methods of checkpoint uploading.

Yandex, SportTechCV infrastructure, Senior Software Engineer   Sept 2023 – Apr 2024

- Designed and implemented a real-time video processing pipeline for tracking player movements on a football field. Was responsible for real-time processing infrastructure and used CV algorithms developed by another team as a black box. Python, PostgreSQL, a message queue similar to Kafka, FFmpeg.
- Wrote a tool for visualizing the progress of each video chunk in real-time.

Yandex, VR and 3D reconstruction infrastructure, Senior Software Engineer   Nov 2022 – Sept 2023

- Sped up video 3D reconstruction pipeline 4x by finding and fixing infrastructural issues and profiling with Torch profiler.
- Researched and tested alternatives to the differentiable 3D-renderer that we were using. Nvdiffrast, Mitsuba 3, Pytorch3d.
- Wrote a tool for converting reconstructed animated 3D model back into video for easy viewing.

Yandex, Self-driving cars simulator testing infrastructure, Software Engineer   May 2020 – Nov 2022

- Designed and implemented a task queue service for launching simulator tests that could scale to thousands of workers. Python, PostgreSQL.
- Designed, prototyped, and helped implement an inference server cluster that could handle to >12k RPS and tens of GBit/s of incoming traffic, and could scale the number of its instances based on the current load. Python, C++, Nvidia Triton Inference Server.

Yandex, Yandex.Market infrastructure, Software Engineer   June 2017 – May 2020

- Worked on a service that parses logs from different backends and turns them into time-series data. Java, MongoDB, ClickHouse, Graphite, a message queue similar to Kafka.
- Worked on a CI/CD web service. Java, MongoDB.

Yandex, Yandex.Market, Test Automation Engineer   Aug 2013 – June 2017

Education

BS   **Saint-Petersburg National Research University of Information Technologies, Mechanics and Optics (ITMO)**, Computer Science   Sept 2011 – June 2015