

Nikita Sivukhin

Staff Engineer

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WORK EXPERIENCE

- now **ShareChat/Moj, core recommendation system**
- 2022 dec sharechat.com
- Development of cost-efficient ANN-index with 100k RPS throughput and p99 latency below 50ms
 - Development of cost-efficient model serving layer based on `tensorflow-serving`
 - Migration of distributed FM training pipeline written in Go from `BigTable` to `Scylla`
 - Ownership of the recall inference layer in large recommendation system
- 2022 dec **Kontur.Focus, business-partner analysis product**
- 2021 may kontur-inc.com/focus
- Development of a high-performance and memory-efficient subsystem for connection analysis. The core component is the company graph index written in `C#` with pattern matching search support
 - Implemented an in-house streaming library for easy and declarative definition of pipelines. The engine was written in `C#` and supported multi-core processing, state checkpoint and LINQ-style DSL
 - Implemented queue on top of the key-value DB for the durable processing of unreliable data source
- 2021 may **Kontur.EDI, electronic document interchange provider**
- 2017 sept
- Development and maintenance of the service for electronic document interchange with focus on reliability, flexibility and speed of message delivery
 - Migrated legacy even-sourcing subsystem which involved live multi-terabyte intelligent data migration and business logic refinements
 - Implemented both back-end and front-end components for a subsystem that automates the process of connecting new clients
 - Some components I contributed in were open-sourced: [GrobExp.Compiler](#), [distributed-task-queue](#)

EDUCATION & ACHIEVEMENTS

- 2022 **Visualized HITB Pro CTF 2022 contest (GitHub)**
- Implemented visualization with plain `three.js`
 - Implemented shader for Voronoi-diagram visualization (interior of a cell)
- 2020 **Worked on ICFPC2020 online contest infrastructure**
- Integrated the contest system with AWS cloud to provide additional resources for the horizontal scaling of bot battles
- 2018 - 2020 **Master's degree of Mathematics and Computer science**
Ural Federal University, Russia
- Joint program with [Yandex School of Data Analysis](#) (ML developer track)
 - Thesis: Construction of Sparse Suffix Trees and LCE Indexes in Optimal Time and Space ([arXiv](#))
- 2014 - 2018 **Bachelor's degree of Mathematics and Computer science**
Ural Federal University, Russia
- Thesis: Compressed multiple pattern matching ([arXiv](#))
- 2016, 2018 **ACM ICPC World Final, Silver and Bronze medal**
- 8th place, Ural Federal University team, final scoreboard: icpc.global
 - 13th place, Ural Federal University team, final scoreboard: icpc.global
- 2014 **International Olympiad in Informatics, Gold medal**
- 23rd place, final scoreboard: stats.ioinformatics.org

SKILLS

- Solid knowledge of Go language (see open source projects: [govanish](#), [gok8sproxy](#), [godjot](#))
- Solid experience with `Cassandra/Scylla`, `Kafka/RedPanda`, `Elasticsearch`, `Redis`
 - Identified correctness bug in `Cassandra` thrift protocol after production incident: [CASSANDRA-14812](#)
- Confident use of `Kubernetes` and `Helm`
 - Optimized costs for `k8s@1.24` in `GKE` with HPA tuning and topology-aware routing
- Passioned about algorithms and data structures, especially compression and compressed data structures
- More than five years of experience and very strong understanding of `C#` language and `.NET` ecosystem
- Knowledge of ML concepts: tabular data, NLP, RecSys (from `Yandex.Dataschool` courses and `ShareChat`)
- Free use of many tools for daily routines: `Python/Jupyter` notebooks, `Unix tools` / `shell` scripts, `docker`
- One year of experience as a full-stack engineer working with `Typescript`, `React` and `webpack`
- Solid knowledge of `C++` from university courses, scientific work and competitive programming contests
 - See implementation of succinct Aho-Corasick algorithm: [Bitbucket](#)