Oleg Fafurin

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Expert in **Algorithms and Data structures**
with SWE and quantitative research experience
finishing my **Master in Computer Science at EPFL**

Experience

- Alpian — Geneva
  SWE intern — **Java/Spring** + **React** — Mar 2024 - Sept 2024
  - Developed an **LLM**-powered text-to-**SQL** translation for an innovative banking service
- EPFL, Theory of Computation Laboratory — Lausanne
  Research Assistant (part-time) — Sept 2022 - Aug 2023
  - Conducted **research** in Linear **optimization theory**
- WorldQuant — St. Petersburg
  Quantitative Researcher (Full-time) — Nov 2021 - Jun 2022
  - Developed systematic trading **algorithms** to infer valuable market statistics and signals
- JetBrains — St. Petersburg
  SWE Intern, Index Viewer project — **Kotlin/Java**, **backend** — July 2021 - Aug 2021
  - Implemented 3 new features for Index Viewer in 2 months, e.g. remote IDE index viewing (**gRPC**)
- Yandex — St. Petersburg
  SWE Intern, Content Recommendations team — **Python** — Jan 2020 - June 2020
  - Evaluated and analyzed a calibrated ranking approach to increase recommendations diversity
  - Used in-house **SQL** dialect to retrieve statistics for better model design decisions

Skills

- Frameworks & Tools: gRPC, Spring Boot, React, Git, Docker, Kubernetes, SQL, Github Actions, ArgoCD, CLI
- Programming languages: Java, Kotlin, C++, Python

Education

- **EPFL**, IC — Lausanne, Switzerland
  Master in Computer Science — Sept 2022 - Ongoing
  Thesis: *Graph sparsification and metric backbone*
- ITMO University, Computer Technologies dept. — St. Petersburg, Russia
  Bachelor of Computer Science, — Sept 2017 - June 2021
  Thesis: *Streaming algorithm for a probabilistical decomposition of finite metrics into tree metrics*

  Got my *A* for **Algorithms and Data Structures** from ICPC world champion Gennady Korotkevich

Projects

- Community detection (`Julia`)
  Analyzed, implemented and evaluated modularity-based community detection algorithms
- Tic-Tac-Toe (`Haskell`)
  A console PVC Tic-Tac-Toe game in Haskell as part of the Functional Programming course
- Aztec Diamond (`C++`)
  Research project in probabilistic combinatorics exploring the features of randomly distributed structured object

Prizes, Awards, Scholarships

- *Huawei*, *Wartsila* student research scholarships (top-5%) — 2020-2021
- International Experimental Physics Olympiad — Bronze Medal in 2015
- Russian Mathematical Olympiad — *Final stage* — Prize in 2015, 2016 (top-0.1% on a national level)
- Russian Physics Olympiad — *Final stage* — Prize in 2015

Extracurricular Activities

- LauzHack, Wartsila, BSA Sui student hackathons at EPFL and ITMO — 2020-2024
- Sports: Mountain and road cycling, hiking, entry-level voleyball and bouldering for leisure