

Vorobev Mikhail

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Education

2019 ↓ 2022	Moscow Institute of Physics and Technology - Phystech School of Applied Mathematics and Informatics - Engineering and Computer Science Bachelor's degree, unfinished (2 years).
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Work and teaching experience

Feb. 2021 ↓ July 2022	Tinkoff - Credit and Brokerage Systems - Backend Engineer Backend Scala development: <ul style="list-style-type: none">• Maintenance and development of several in-house microservices.• Integration of message brokers: RabbitMQ and Kafka.• Integration of databases: MongoDB and PostgreSQL.• Implementation of several significant business features in online credit broker.
Aug. 2022 ↓ today	Mosaic Research - Crypto HFT - Backend Engineer Backend C++ development: <ul style="list-style-type: none">• Development and maintenance of infrastructure for crypto trading.• Setting up CI pipeline for CMake projects: building, testing, caching, automatic dependencies updating.• Implementing microservices communication protocol with Aeron.
2021, 2022	Summer School «Slon» in Pushchino - Volunteer-Tutor Courses taught: Formal languages, Mathematical logic, FP in Scala, Python from scratch.

Courses

2021	MIPT - Concurrency course C++. Implementation of simple concurrency library: fibers, futures, thread pool.
2021	MIPT - Distributed systems C++. Implementation of distributed consensus and replication algorithms: paxos, multi paxos, raft.
2020	Tinkoff.Fintech - Scala development course Scala. Implementation of StopLoss-TakeProfit service integrated with tinkoff.investments.
2019 ↓ 2020	Mail.ru - Introduction to production programming and data structures C, C++. Implementation of stack machine emulator and high-level language compiler for it.
2017 ↓ 2019	Air engineering school in Russia - Sounding rocket payload development C for AVR and STM32. Development of on-board firmware and peripheral drivers.

Projects

2020	gainy - Service with REST API Scala. StopLoss-TakeProfit service integrated with tinkoff.investments.
2019	PEGgen - Command line utility Python3. Generation of recursive descent parser from formal grammar.
2021	yaelc - Compiler of java-like language C++. Scanner (GNU Flex), LR-parser (GNU Bison), AST, type table.
2017 ↓ 2019	librses - Peripheral drivers library for AVR C for AVR. Driver for Iridium9602 modem and testing of other modules.

Skills

Programming languages	Scala, C/C++, Python3
Technologies	MongoDB, PostgreSQL, RabbitMQ, Kafka
Frameworks and libraries	ZIO, cats, fs2, akka-http, Aeron
Tools	git, cmake, sbt, Gitlab CI, Github Actions, liquibase
Languages	Русский(родной), English(B2)