

Aleksandr Stupnikov

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Final year master's student in Computer Science with real software development experience in Kotlin and a passion for research. I specialize in the area of compilers and programming languages.

Education

Constructor University, MS in Advanced Software Technology – Bremen, Germany Sept 2024 – present

- GPA 2.07 Transcript
 - Relevant coursework: Virtual Machines, Metacomputations, Advanced Functional Programming, Dependent Types, Category theory

ITMO University, BS in Computer Science and Programming – St. Petersburg, Russia Sept 2020 – Aug 2024

- GPA: 4.4/5.0 Transcript
 - Relevant coursework: Algorithms and Data Structures, Java, Functional Programming, Compilers, Parsing Techniques, Computer Architecture, Parallel Programming

Skills

Languages: Kotlin, Java, Haskell, SQL, C

Technologies: JUnit, Ktor, ANTLR, PostgreSQL, Git, Docker, Gradle, Bash, IntelliJ IDEA, VSCode

Experience

Intern, JetBrains – Remote, Germany Apr 2025 – Feb 2026

- Developed Kotlin library and compiler plugin for RPC which uses coeffects to make remote calls implicitly
 - Link: <https://github.com/enotvtapke/kotlin-remote>
 - Technologies: Kotlin Multiplatform, Kotlin compiler plugins, Kotlin serialization

Software Engineer, Liptsoft – Saint Petersburg, Russia July 2022 – Aug 2024

- Developed and integrated microservice for currency exchange operations into existing infrastructure using Kotlin, Ktor and PostgreSQL which increased the development speed of currency exchange related features
 - Implemented new custom payment scenario for an internet bank which replaced a number of old scenarios and improved UX
 - Technologies: Kotlin, Ktor, Junit, Gradle

Projects

Self-applicable Flowchart partial evaluator 2025

- Self-applicable partial evaluator to generate compiler generator using third Futamura projection.
 - Link: github.com/enotvtapke/partial-evaluator
 - Technologies: Haskell, Control-flow analysis

Higher order parser combinators for left-recursive grammars 2024

- Haskell parser combinator library that makes use of CPS and memoization to achieve unique properties. A part of my undergraduate thesis.
 - Link: github.com/enotvtapke/memoized_cps_parser
 - Technologies: Haskell, Syntax analysis