

ARTEM YURCHENKO

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EDUCATION

IU Bloomington, USA 2022–Present

- PhD in Computer Science, focus on Programming Languages and Formal Verification

ITMO University, Saint Petersburg, Russia 2017–2021

- Bachelor's in Computer Science
- GPA: 4.93/5.00
- *My thesis project* “Automatic Effectful Concurrency via Free Monads”, qualitatively extending Facebook's Haxl, won 2nd place in the **ICFP 2021** Student Research Competition.

EXPERIENCE

Nethermind Jun 2021–Sep 2022

Software Engineer

- Worked on formal verification tools and applications of formal verification, using **Haskell**, **Lean**, **SMT-solvers**, e.g. **z3**.
- Built *Warp* — a transpiler from Ethereum's Solidity to StarkWare's Cairo — using **C++** and **Python**. Warp helps to scale **Ethereum** applications by offloading computation to StarkNet.
- Building a tool for writing and validating specifications of Cairo contracts. The tool uses **SMT-checkers** to perform validation and is written in **Python** (the compiler plugin part) and **Haskell** (the main part).

ITMO University Sep 2020–Jun 2022

Teaching Assistant

- Checked assignments and did code reviews for the following courses: **Java**, **Databases** and **Haskell**.
- Gave several lectures for the Haskell course.

Serokell Jul 2020–Dec 2020

Software Engineer

- Developed tools for the *Tezos* project (blockchain, Haskell eDSL) in **Haskell**
- Developed an LSP-server for the *LIGO* language in **Haskell**.

JetBrains

Jul 2019–Dec 2019

Software Engineer Intern

- Worked on improving the usability of the projectional editor on *the MPS* team. The **MPS** is a platform to create and use DSLs, free from grammars.
- Used **Java** and MPS-specific DSLs to accomplish the task.

JetBrains

Jul 2018–Sep 2018

Software Engineer Intern

- Worked on a C/C++ **compiler frontend**, written in C++.
- Added support for C++ constructs, such as namespaces, “using directives”, name lookup etc.

OTHER EXPERIENCE

- *Several contributions* to Equake—a drop-down console written in **Emacs Lisp**.
- Wrote *git-fast-reword*: “Reword your commits without rewriting a file tree”.
- Wrote a *TFTP implementation* in **C**
- Second Prize Diploma at the International Student Team Online Competition in Mathematics, organized by the University of Silesia, 2020, Katowice (Poland).
- Participation in the Russian Olympiad in Informatics, 2017, Innopolis.

CONTACTS

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