Filip Říha

Email	riha.fina@gmail.com
Webpage	https://rihafilip.github.io
GitHub	https://github.com/rihafilip
Google Scholar	https://scholar.google.com/citations?user=w9TEpsIAAAAJ
ORCID	https://orcid.org/0009-0009-3933-2997

Education

PhD in Informatics — **2025 – present**
FIT CTU in Prague
Supervisor: Filip Křikava, *Co-supervisor:* Tomáš Petříček

Master's Degree in System Programming — **2023 – 2025**
FIT CTU in Prague

Bachelor's Degree in Theoretical Informatics — **2019 – 2023**
FIT CTU in Prague

Work Experience

PhD Student and PL Researcher — **2023 – present**
Programming Research Laboratory, FIT CTU in Prague
https://prl-prg.github.io/

- Research of type feedback behavior in Just-in-time compilers.
- Research and tool development in virtual machine benchmarking.
- Focus on language virtual machines and the R language.

Junior Java Developer — **2022 - 2023**
https://profinit.eu/

- Development of a system for non-life insurance integrated with the bank's other systems.
- Development of internal tools for testing, deploying, and mocking.

Internship — **2021**
https://artemis-crm.cz/

- Complete solutions in Microsoft Dynamics 365.
- Development of CRM solution tailored form customer, including web and mobile applications, migration from different systems, and database administration.

Publications

Filip Říha, Filip Křikava (2026). **bench: A Programmable Command-Line Framework for Complex Benchmarking Workflows**. In SPLASH-ISSTA'26 Tool Demonstrations.
DOI: 10.1145/3837729.3840502

Sebastián Krynski, Filip Říha, Filip Křikava, Jan Vitek (2026). **Characterizing Type Feedback in Just-in-Time Compilation**. In ECOOP'26.
DOI: 10.4230/LIPIcs.ECOOP.2026.16

Matěj Kocourek, Filip Říha, Oliver Tušla, Pierre Donat-Bouillud, Filip Křikava, Jan Vitek (2026). **What Do R Benchmarks Measure: Toward a Performance-Characterized Benchmark Suite for R**. In VMIL'26.
DOI: 10.1145/3840562.3844972

Sebastián Krynski, Michal Štěpánek, Filip Říha, Filip Křikava, Jan Vitek (2024). **Reducing Feedback Pollution**. In VMIL'24.
DOI: 10.1145/3689490.3690404

Teaching Experience

NI-RUN – Runtime Systems (Teaching Assistant)
FIT CTU in Prague
Introduction to the world of virtual machines for high-level programming languages.

BI-OOP – Object-Oriented Programming (Teaching Assistant)
FIT CTU in Prague
Advanced concepts of OOP at the end of undergraduate CS program.

Projects

bench
https://github.com/PRL-PRG/bench

- A complete tool for benchmarking experiments.
- Both a command-line tool for quick benchmarks, and a Python framework for defining rigid and reproducible experiments.

HaSOM
https://github.com/rihafilip/HaSOM

- Simple Object Machine language implementation in Haskell.
- Pure OOP language implemented in pure functional programming language.
- Includes a lexer, parser, compiler, bytecode interpreter, and garbage collector.

Languages

Czech	Native
English	C1 (CAE certificate)