Idriss Riouak

Curriculum Vitae

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Links

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Education

2019–Today Lund University, Sweden, Ph.D. Student, Computer Science Department.

2017–2019 University of Udine, Italy, Master in Computer Science. Curriculum: Software Verification and

formal methods, 110/110 cum laude.

2013–2016 University of Parma, Italy, Degree in Computer Science, 106/110.

2008–2013 Techinical Economic Institute Bodoni, Italy, High school degree, Final grade: 94/100.

Compiler's Related Experience

2024 Main developer of CAT: Callgraph Analysis Tool, Open Source Project.

2019 - Today Contribution to the ExtendJ Java Compiler, Open Source Project.

2019 - Today Contribution to the JastAdd Metacompiler, Open Source Project.

2020 - Today Main developer of the IntraJ Static Analyser, Open Source Project.

2020 - Today Teaching assistant for the course Compilers, Lund University.

2022-2023 Teaching assistant for the course Program Analysis, Lund University.

2021-2022 Teaching assistant for the course Concepts of Programming Languages, Lund University.

2019 RNB-Compiler: front-end and middle-end of a compiler for the RNB language, University of Udine.

September 2018 SX2PH:Transpiler from SpaceEx to PHAVer, University of Udine and University of Parma.

2017 - 2020 Clang & LLVM contributor, Open Source Project. Contribution to the LLVM project Clang-Tidy.

Work Experiences

2015 - 2018 **Software Developer for F.B. Services**, Developed and maintained the company information system, SQL-Server, Visual Basic.

2013 - 2016 Waiter at Castellazzo Tennis Club.

Certifications & Awards

March 2024 **ACM Student Research Competition**, <*Programming*>'24, First Place. Using Static Analysis to Improve the Efficieny of Static Analysers

October 2019 Scholarhip to attend the LLVM Dev Meeting 2019 conference, LLVM Foundation, San Jose, California, USA.

- June 2018 Effective MISRA C, Certificate released by professor Roberto Bagnara, Bugseng.
- April 2019 Scholarhip to attend the EuroLLVM 2019 conference, LLVM Foundation, Brussels, Belgium.
- May 2013 National Champion of C++ team Olympics (Undergraduate Student), I.T.E. Bodoni.

Publications

- October 2024 **Efficient Demand Evaluation of Fixed-Point Attributes Using Static Analysis**, *Idriss Riouak*, *Niklas Fors, Jesper Öqvist*, *Görel Hedin and Christoph Reichenbach*, SLE 2024.
 - July 2024 IntraJ: An On-Demand Framework for Intraprocedural Java Code Analysis, Idriss Riouak, Niklas Fors, Görel Hedin and Christoph Reichenbach, Submitted for publication at JTTT 2024.
- August 2022 **JFeature: Know Your Corpus**, *Idriss Riouak, Görel Hedin, Christoph Reichenbach and Niklas Fors*, SCAM 2022.
- October 2021 A Precise Framework for Source-Level Control-Flow Analysis, Idriss Riouak, Christoph Reichenbach, Görel Hedin and Niklas Fors, SCAM 2021.
 - June 2019 Non-well-founded set based multi-agent epistemic action language, Fabiano Francesco, Riouak Idriss, Agostino Dovier and Enrico Pontelli, CILC 2019.
 - June 2019 Category Report: Hybrid Systems with Piecewise Constant Dynamics, Goran Frehse et al., ARCH-COMP 2019.

Invited Talks

- June 2024 IntraJ: An On-Demand Framework for Intraprocedural Java Code Analysis, Challanges of Software Verification 2024, Ca' Foscari University, Venice.
- June 2022 **Source-Level Dataflow-Based Fixes: Experiences From Using Intraj and Magpiebridge**, *Berlin*, PRIDE Workshop.
- October 2021 A Precise Framework for Source-Level Control-Flow Analysis, Virtual, ROSE Workshop.

Thesis

- March 2023 Licentiate Thesis: Declarative Specification of Intraprocedural Control-flow and Dataflow Analysis, Lund University, Opponent: Alexandre Bartel.
 - June 2019 Non-well-founded set based multi-agent epistemic action language, *University of Udine*, Supervisor: Agostino Dovier, Co-supervisor: Francesco Fabiano.
 - Dic 2016 A Study on the Effectiveness of Automatic Checkers for Modernizing C++ Code, *University of Parma*, Supervisor: Enea Zaffanella.

Extra Courses

- July 2023 Oregon Programming Languages Summer School, Types, Semantics, and Logic.
- September 2022 **Summer School on Software Testing and Verification**, Security, Verification, Static Analysis and Testing, Leuven, Belgium.
 - August 2022 Synthesis of Human Communication, Norrköping, Sweden.
 - August 2021 **Programming Languages Implementation Summer School**, Programming Languages Implementation, Virtual.
 - July 2020 Autonomous System Summer School 2020, Virtual.

Languages

- Italian Native Speaker.
- English Proficient in professional English communication.
- Swedish Basic.