

Denys Shabalin

Curriculum Vitae

Education

- Ecole Polytechnique Fédérale De Lausanne
PhD in Computer Science, started 2014 (ongoing)
- Ecole Polytechnique Fédérale De Lausanne
Masters Degree in Computer Science, 2012 – 2014
- National University of Kyiv-Mohyla Academy, Kyiv, Ukraine
Bachelor Degree, Applied Mathematics, 2008 – 2012

Research experience

Collaborated with LAMP laboratory and Typesafe Inc. throughout my masters studies at EPFL conceiving and implementing quasiquotes for Scala that have become a de-facto tool for metaprogramming in Scala.

At the beginning of my PhD, implemented an experimental off-heap memory management system for Scala under scala-offheap project.

Currently working on ahead-of-time native code compiler for Scala based on LLVM compiler infrastructure.

Research interests

- Compiler architecture and design
- High-level language optimisation techniques
- Modern programming languages (concurrency, type systems, compilers)

Talks, publications and technical reports

- Shabalin Denys “Type-safe off-heap memory for Scala”, conference talk at Scala Days ‘15
- Shabalin Denys “Quote or be quoted”, conference talk at Scala Days ‘14
- Shabalin Denys “Modular Quasiquotes for Scala”, student talk at the Scala Workshop ‘13. July 2, 2013. Montpellier, France.
- Shabalin Denys, Eugene Burmako, Martin Odersky “Quasiquotes for Scala”, technical report. March 2013. EPFL-REPORT-185242

Professional experience

- Master thesis in industry at the Typesafe Switzerland Sàrl (February 2014 — July 2014) research and implementation of referential transparency for quasiquotes and Scala metaprogramming API
- Intern at Typesafe Switzerland Sàrl (August 2013 — January 2014) worked on Scala compiler and standard library introduced quasiquotes as an official feature of the upcoming Scala 2.11 release

