Zoe Paraskevopoulou

Personal Information

Date of birth: 31 July 1990 **Webpage**: zoep.github.io
Citizenship: Greek **Email**: zoe.paraskevopoulou@princeton.edu

Education

PhD in Computer Science, Princeton University — September 2015 to Present

Area: Programming Languages

Master's Degree — September 2014 to September 2015

Master Parisien de recherche en Informatique, École Normale Supérieure de Cachan, France

Level: M2

Specialization: Logics and Semantics of Programs

Thesis: *Self-Adgusting Computation for CostIt*, Grade: 19/20

Courses:

- Foundations of proof systems
- Linear logic and logical paradigms of computation
- Automated deduction
- Abstract interpretation
- Proof assistants
- Functional programming and type systems
- Proofs of programs
- Semantics, languages and algorithms for multicore programming

Diploma (5-year degree) — September 2008 to September 2014

School of Electrical and Computer Engineering, National Technical University of Athens, Greece

Majors: Computer Software, Computer Systems

Minors: Mathematics, Computer Networks

Thesis: *A Coq Framework For Verified Property Based Testing*, Grade: 10/10

Thesis Committee: Nikolaos Papaspurou, Kostis Sagonas, Yannis Smaragdakis

Research Experience

Research Internship at Max Planck Institute of Software Systems — March 2015 to August 2015

- Topic: *Self-Adjusting Computation for CostIt*
- Advisor: Deepak Garg

Research Internship at INRIA Paris-Rocquencourt — April 2014 to September 2014

- Topic: *QuickChick: A Coq Framework For Verified Property Based Testing*
- Advisor: Cătălin Hriţcu
- Team: Prosecco

Publications

Foundational Property-Based Testing.
Zoe Paraskevopoulou, Catalin Hritcu, Maxime Dénès, Leonidas Lampropoulos and Benjamin C. Pierce. In 6th International Conference on Interactive Theorem Proving (ITP), 2015.

Workshop Talks

A Coq Framework For Verified Property-Based Testing (Extended Abstract).
Zoe Paraskevopoulou, Catalin Hritcu, Maxime Dénès, Leonidas Lampropoulos and Benjamin C. Pierce. CoqPL 2015.

QuickChick: Property-Based Testing for Coq.
Maxime Dénès, Catalin Hritcu, Leonidas Lampropoulos, Zoe Paraskevopoulou and Benjamin C. Pierce. The 6th Coq Workshop. July 2014.

Scholarships and Awards

Stanley J. Seeger Hellenic Studies Prize 2015

KARY Award 2014
Award for excellent academic performance for the academic year 2012-2013

Selected for **scholarship** for attending PLMW at POPL 2015. 2014

INRIA-MPRI Scholarship 2014
1 year scholarship for attending the MPRI program.

Scholarship for attending Applied Functional Programming in Haskell Summer School, Utrecht University, Netherlands. 2013

Other Courses

Summer School on Applied Functional Programming in Haskell August 2013
Utrecht University, Netherlands.

Certificates of accomplishment for the following **Online Courses**:

- Cryptography I March 2013
  provided by Standford University through Coursera Inc.
- Software as a Service November 2012
  provided by BerkeleyX through edX

Interests

Programming languages theory and implementation, logic, computer security, static analysis, software testing and verification, cryptography

Notable Student Projects

Lambda Calculus Interpreter November 2013
An interpreter for a typed lambda calculus variant featuring let and let-rec definitions, if-then-else construct, pairs, various arithmetic, boolean and relative operators, type inference and let-polymorphism. Implemented in Haskell in a team of 2 students.

Llama Compiler October 2013
A compiler for an OCaml-like language with pattern matching, type inference, higher-order functions and user defined data types. The compiler performs control flow graph, peephole and tail call optimizations. Developed in OCaml in a team of 3 students.

Advanced Topics in Database Systems Project March 2013
A bibliographic report about security and cryptography in database systems, written in a team of 2 students.

Cryptography Project January 2013
A library implementing basic operations on elliptic curves over prime fields, Elliptic Curve digital signature and Diffie-Hellman key exchange algorithms. Developed in Ocaml in a team of 2 students.

Database Systems Project February 2012
Design and implementation of a database management system for a fictional airport, following the MVC pattern. Developed using MySQL, PHP, HTML and Javascript in a team of 2 students.

Other Activities

Music studies at the National Conservatory of Athens.

Piano September 2008 to present

Chamber Music September 2013 to June 2014

Choral Conducting September 2012 to June 2014

Theory of Harmonization September 2011 to June 2014

Music Theory September 2010 to June 2011