

GEORGIOS “GEORGE” BALATSOURAS

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EDUCATION

- Ph.D. Candidate**, Static Program Analysis 2012 –
Ethnikon kai Kapodistriakon Panepistimion Athinon / University of Athens
Department of Informatics & Telecommunications
Advisor: Assoc. Prof. Yannis Smaragdakis (smaragd@di.uoa.gr)
- Master of Science**, Computing Systems 2009 – 2012
Ethnikon kai Kapodistriakon Panepistimion Athinon / University of Athens
Department of Informatics & Telecommunications
Grade: 9.78/10. Top of graduating class (31 graduates).
- Bachelor of Science**, Computer Science 2004 – 2009
Ethnikon kai Kapodistriakon Panepistimion Athinon / University of Athens
Department of Informatics & Telecommunications
Grade: 8.80/10. Top of graduating class (~50 graduates).

EXPERIENCE

- LogicBlox, Inc** April 2012 – August 2012
Software Engineer Intern, Compiler Technologies Atlanta, GA, USA
- Supervisor: Shan Shan Huang (ssh@logicblox.com)
 - Contributed to the active development of BLOXANALYSIS, a tool used to perform static analysis of Datalog programs by representing them in a LogicBlox workspace.
 - Implemented a clone-detection library using BLOXANALYSIS that is able to (i) trace isomorphic formulas, (ii) identify redundant rules in Datalog programs, and (iii) detect alternate indices that can be used in place of original predicates for optimization purposes.
 - Implemented a string-concatenation library that reduces the space complexity of the intermediate materialized strings from $O(n^2)$ to $O(n \log n)$.
- University of Athens** July 2011 – present
Research Assistant, Dept. of Informatics & Telecommunications Athens, Greece
- Supervisor: Assoc. Prof. Yannis Smaragdakis (smaragd@di.uoa.gr)
 - Project: PADECL (“Advanced Program Analysis Using Declarative Languages”)
- University of Athens** October 2010 – June 2011
Research Developer, Dept. of Informatics & Telecommunications Athens, Greece
- Supervisor: Prof. Alex Delis (ad@di.uoa.gr)
 - Project: [PERNASVIP](#)
 - Description: Development of the Itinerary Planner Server, i.e. the server who generates the [itineraries](#) that will be used for navigation by the end-users of the system

LANGUAGES AND CERTIFICATES

- Greek (native), English (fluent)
Certificate of Proficiency in English, University of Michigan (USA) 2003

TECHNICAL SKILLS

Programming Languages	C/C++, Java, Python, Bash, Haskell, Prolog, Datalog
Version Control Systems	Git, Mercurial, Subversion
Editors and IDEs	Emacs, Eclipse, NetBeans, Microsoft Visual Studio 6
Build Automation	GNU Make, Apache Ant, Apache Maven
UNIX Skills	Shell Scripting, Systems Programming, Command-line Utilities
Databases and Tools	SQL, MySQL, JDBC, DBDesigner
Compilers and Debuggers	GCC / G++, GDB, Valgrind
Concurrent Programming	Pthreads, MPI, Java (low-level API, <code>java.util.concurrent.*</code>)
Operating Systems	Linux, BSD, Unix and Unix-like operating systems, Windows
Frameworks	ASM, BCEL, AspectJ, CGAL, ECLiPSe
Web Development	HTML5 + CSS, PHP, JSP
Other	GNU Bison + Flex Lexical Analyzer, L ^A T _E X, LibreOffice

ACTIVITIES

Teaching Assistant	2009 – 2014
University of Athens - Dept. of Informatics & Telecommunications	

EXTRA-CURRICULAR ACTIVITIES

Reading, Music (piano, guitar), Soccer

PUBLICATIONS

- George Balatsouras and Yannis Smaragdakis. “Class Hierarchy Complementation: Soundly Completing a Partial Type Graph”. In: *Proc. of the 28th Annual ACM SIGPLAN Conf. on Object Oriented Programming, Systems, Languages, and Applications*. OOPSLA ’13. Indianapolis, Indiana, USA: ACM, 2013, pp. 515–532. ISBN: 978-1-4503-2374-1
- Yannis Smaragdakis, George Balatsouras, and George Kastrinis. “Set-Based Pre-Processing for Points-To Analysis”. In: *Proc. of the 28th Annual ACM SIGPLAN Conf. on Object Oriented Programming, Systems, Languages, and Applications*. OOPSLA ’13. Indianapolis, Indiana, USA: ACM, 2013, pp. 253–270. ISBN: 978-1-4503-2374-1
- Yannis Smaragdakis, George Kastrinis, and George Balatsouras. “Introspective Analysis: Context-sensitivity, Across the Board”. In: *Proc. of the 2014 ACM SIGPLAN Conf. on Programming Language Design and Implementation*. PLDI ’14. Edinburgh, United Kingdom: ACM, 2014, pp. 485–495. ISBN: 978-1-4503-2784-8. DOI: [10.1145/2594291.2594320](https://doi.org/10.1145/2594291.2594320). URL: <http://doi.acm.org/10.1145/2594291.2594320>

GRANTS AND AWARDS

- SIGPLAN Professional Activities Committee (PAC) travel grant for ACM OOPSLA 2013.