

# Georgios “George” Balatsouras

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🌐 [github.com/gbalats](https://github.com/gbalats)

## EDUCATION

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- Ph.D. Candidate**, Static Program Analysis 2012 – 2017  
Ethnikon kai Kapodistriakon Panepistimion Athinon / University of Athens  
Department of Informatics & Telecommunications  
Advisor: Prof. Yannis Smaragdakis ([smaragd@di.uoa.gr](mailto:smaragd@di.uoa.gr))  
Thesis: *Recovering Structural Information for Better Static Analysis*.
- 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

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- Hellenic Army Information Technology Support Center (KEPYES)** June 2017 – present  
*Software Development Engineer* Athens, Greece
- *Description*: Served in the Research and Informatics Corps (mandatory military service) with Software Development responsibilities. Worked on the development of a Java EE Web application with JSF to support existing and add new, inter-organizational operations of the Hellenic Army.
- University of Athens** July 2011 – May 2017  
*Research Assistant, Dept. of Informatics & Telecommunications* Athens, Greece
- *Supervisor*: Assoc. Prof. Yannis Smaragdakis ([smaragd@di.uoa.gr](mailto:smaragd@di.uoa.gr))
  - *FP7 Projects*: (1) [SPADE](#) (“Sophisticated Program Analysis, Declaratively”), (2) [PADECL](#) (“Advanced Program Analysis Using Declarative Languages”)
  - *Description*: Worked on the active development of the DOOP framework for static analysis of Java projects. Developed [cclyzzer](#), a new static analysis framework for C/C++, using the LogicBlox Datalog engine, the LLVM infrastructure, Python, and C/C++.
- LogicBlox, Inc** April 2012 – August 2012  
*Software Engineer Intern, Compiler Technologies* Atlanta, GA, USA
- *Supervisor*: Shan Shan Huang ([ssh@logicblox.com](mailto:ssh@logicblox.com))
- University of Athens** October 2010 – June 2011  
*Research Developer, Dept. of Informatics & Telecommunications* Athens, Greece
- *Supervisor*: Prof. Alex Delis ([ad@di.uoa.gr](mailto: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

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Greek (native), English (fluent)

Certificate of Proficiency in English, University of Michigan (USA)

2003

## TECHNICAL SKILLS

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**Programming Languages** C/C++, Java, Python, Bash, Prolog, Datalog, Emacs Lisp

**Version Control Systems** Git, Mercurial, Subversion

**Build Automation** GNU Make, Apache Ant, Apache Maven

**UNIX Skills** Shell Scripting, Systems Programming, Command-line Utilities

**Editors & IDEs** Emacs, IntelliJ IDEA, Eclipse

**Databases and Tools** SQL, MySQL, LogicBlox

**Compilers and Debuggers** GCC / G++, GDB, Valgrind, LLVM

**Frameworks** ASM, BCEL, AspectJ, CGAL, ECLiPSe

**Web Development** HTML + CSS, PHP, JSP, JSF, PrimeFaces, Django, Bootstrap

**Other** GNU Bison + Flex, L<sup>A</sup>T<sub>E</sub>X, LibreOffice, G Suite, Docker

## ACTIVITIES

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**Teaching Assistant**

2009 – 2014

University of Athens - Dept. of Informatics & Telecommunications

## HOBBIES & INTERESTS

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reading, music (piano, guitar), role-playing games, Emacs hacking, soccer

## PUBLICATIONS

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- G. Balatsouras et al. “A Datalog Model of Must-alias Analysis”. In: *Proc. of the 6th ACM SIGPLAN International Workshop on State Of the Art in Program Analysis*. SOAP ’17. Barcelona, Spain: ACM, 2017.
- G. Balatsouras and Y. Smaragdakis. “Structure-Sensitive Points-To Analysis for C and C++”. In: *Proc. of the 23rd International Symp. on Static Analysis*. SAS ’16. Edinburgh, United Kingdom: Springer, 2016.
- Y. Smaragdakis, G. Balatsouras, and G. Kastrinis. “More Sound Static Handling of Java Reflection”. In: *Proc. of the 13th Asian Symp. on Programming Languages and Systems*. APLAS ’15. Pohang, Korea, 2015.
- Y. Smaragdakis and G. Balatsouras. “Pointer Analysis”. In: *Foundations and Trends® in Programming Languages* 2.1 (2015), pp. 1–69.
- Y. Smaragdakis, G. Kastrinis, and G. 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.
- G. Balatsouras and Y. 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.

- Y. Smaragdakis, G. Balatsouras, and G. 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.