

## Konstantinos Kallas

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<b>Contact</b>	Email: kallas@seas.upenn.edu – Website: angelhof.github.io	
<b>Education</b>	<b>University of Pennsylvania</b> Computer and Information Science, PhD student Advisor: Rajeev Alur	<i>September 2018 – present</i>
	<b>Eighth Summer School on Formal Techniques</b> Menlo College, Atherton, CA Organised by SRI International	<i>May 2018</i>
	<b>National Technical University of Athens</b> Electrical and Computer Engineering, Diploma Thesis: “ <i>HiPerJiT: A Profile-Driven Just-in-Time Compiler for Erlang</i> ” Advisor: Prof. Kostis Sagonas	<i>October 2012 – February 2018</i>
	<b>Universita degli Studi dell’Aquila</b> Computer Science, Erasmus Mobility Program	<i>February 2015 – July 2015</i>
<b>Working Experience</b>	<b>Software Engineering Intern</b> Amazon Web Services, New York, US Internship in the Automated Reasoning Group. Worked on the verification of critical C code.	<i>May 2019 - August 2019</i>
	<b>Google Summer of Code Student</b> Worked with BEAM Community to extend the <i>ejabberd</i> open source project. Implemented support for the “ <i>Let’s Encrypt</i> ” ACME certificate acquiring protocol.	<i>May 2017 - September 2017</i>
	<b>Big Data Application Developer</b> Everis, Barcelona, Spain Internship at the Big Data Center of Excellence. Developed Big Data Applications using a plethora of tools in the Hadoop ecosystem.	<i>June 2016 - September 2016</i>
<b>Teaching Experience</b>	<b>Teaching Assistant</b> Institution: University of Pennsylvania Course: <i>Software Foundations</i> , Graduate level Professor: Benjamin Pierce	<i>Fall 2019</i>
	<b>Lab Assistant</b> Institution: National Technical University of Athens Course: <i>Introduction to Programming</i> , Undergraduate level Professors: S. Zachos, N. Papaspyrou, V. Kantere, and P. Potikas	<i>Fall 2017</i>
<b>Publications</b>	<b>Dish: Distribution-oblivious Shell Scripting.</b> Konstantinos Kallas, Nikos Vasilakis, Lazar M. Cvetković, and Konstantinos Mamouras. <i>In submission.</i>	
	<b>Flumina: Correct distribution of Stateful Streaming Computations.</b> Konstantinos Kallas*, Filip Niksic*, Caleb Stanford*, and Rajeev Alur. <i>In submission.</i>	
	<b>Differential Testing for Stream Processing Systems.</b> Konstantinos Kallas*, Filip Niksic*, Caleb Stanford*, and Rajeev Alur. <i>In submission.</i>	

**Code-Level Model Checking in the Software Development Workflow.**

Nathan Chong, Byron Cook, Konstantinos Kallas, Kareem Khazem, Felipe R. Monteiro, Daniel Schwartz-Narbonne, Serdar Tasiran, Michael Tautschnig, and Mark R. Tuttle.

42st International Conference on Software Engineering: Software Engineering in Practice (ICSE-SEIP 2020).

**Security Criteria for a Transparent Encryption Layer.**

Konstantinos Kallas, Clara Schneidewind, Benjamin C. Pierce, and Steve Zdancewic. Workshop on Foundations of Computer Security (FCS 2019).

**HiPerJiT: A Profile-Driven Just-in-Time Compiler for Erlang.**

Konstantinos Kallas and Konstantinos Sagonas.

30th Symposium on Implementation and Application of Functional Languages (IFL 2018).

**Honors and Awards****Programming Competitions***2015-2018*

Participation in many programming competitions. Notable examples:

ICFP Programming Contest 2018 (Lightning) *10th out of 91 teams*,

IEEE Xtreme 2017 *Top 5%* and *3rd* in Greece, IEEE Xtreme 2016 *Top 10%*

**Heterogenous Computing Student Challenge Certificate***2017*

HiPEAC CSW, Zagreb, Croatia

Optimizing GPU implementation of the K-means algorithm (NTUA-team)

Supervision: Prof. Georgios Goumas

**EESTech Challenge***2017*

Supervised Machine Learning Hackathon

*Joint 1st place* among 40 teams.

**The Great Moment of Education Scholarship from Eurobank EFG***2012*

Achieving the highest rank in national qualifications exams in Dionisos high school.

**9th European Union Science Olympiad***2011*

Team-based science competition in Biology, Chemistry, and Physics.

*1st place* in local round and *3rd place* in national round.

**Mathematical Competition, Hellenic Mathematical Society***2010*

Mathematical competition for high school students.

Distinction in the 1st and 2nd local round.

**Computer Experience****Programming Languages:**

Erlang, Haskell, Python, Coq, C, Scala, SML, Agda, Javascript, Matlab, Java, SQL

**Operating Systems:**

Extensive experience on the Linux OS and Linux Kernel Programming.

**Hadoop:**

Deep understanding of the Hadoop Ecosystem as well as hands on experience.

**Typesetting:**

Experience using L<sup>A</sup>T<sub>E</sub>X.

**Languages**

**Greek** (Native), **English** (C2), **Italian** (C1), **German** (B2)