

# Marios Kogias

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<b>RESEARCH FOCUS</b>	Operating Systems, Networking, Datacenters, Tail Latency, Remote Procedure Calls, Dataplanes, Scheduling, Load-balancing, Network Transports, Programmable Switches	
<b>EDUCATION</b>	<i>Doctor of Philosophy</i>	September 2015 - August 2020
	School of Computer and Communication Sciences École Polytechnique Fédérale de Lausanne (EPFL), Switzerland Advisor: Edouard Bugnion	
	<i>Diploma (5-year degree, Master's equivalent)</i>	October 2009 - October 2014
	School of Electrical and Computer Engineering National Technical University of Athens (NTUA), Greece Thesis Advisor: Nektarios Koziris GPA: 9.36/10.00 (top 2%)	
<b>EXPERIENCE</b>	<i>Researcher</i>	September 2020 - present
	Microsoft Research, Cambridge, US Confidential Computing Group	
	<i>Research Intern</i>	June 2018 - September 2018
	Microsoft Research, Redmond, US I worked as part of the Cloud Efficiency group on latency-critical VM scheduling. Advisors: Ricardo Bianchini, Sameh Elnikety	
	<i>Software Engineering Intern</i>	June 2016 - September 2016
	Google, Mountain View, US I worked as part of the Platforms team on performance analysis of the Google data-center network. Advisor: Malweeka Tewari	
	<i>Software Engineering Intern</i>	November 2014 - April 2015
	CERN, Geneva, CH I worked on the invenio project, a digital library software, implementing a new search engine based on Elasticsearch.	
	<i>Software Engineering Intern</i>	May 2014 - August 2014
	Google Summer of Code - LTtng project I worked on implementing a tracing pipeline for Ceph's RADOS on LTtng and Twitter's Zipkin. This work was taken over by Ceph and now is part of their upstream repository.	
	<i>Junior Developer</i>	July 2013 - September 2013
	okeanos, GRNET, Athens, GR I contributed to the Synnefo project, specifically on the virtual networking infrastructure implementing the Openstack Neutron API for Synnefo in Python Django	

Founder, Software Engineer  
sourcelair.com, Athens, GR

December 2010 - September 2013

I worked on sandboxing untrusted code execution and the sourcelair iOS application.

**CONFERENCE  
PUBLICATIONS**

*Harvesting Idle CPUs Safely and Efficiently in the Cloud*

Yawen Wang, Kapil Arya, **Marios Kogias**, Manohar Vanga, Aditya Bhandari, Neeraja J. Yadwadkar, Siddhartha Sen, Sameh Elnikety, Christos Kozyrakis, and Ricardo Bianchini  
Under submission

*Enclosure: language-based restriction of untrusted libraries*  
Adrien Ghosn, **Marios Kogias**, James Larus, Ed Bugnion  
ASPLOS 2021

*REAP: Record-and-Prefetch Serverless Functions Orchestration*  
Dmitrii Ustiugov, Plamen Petrov, **Marios Kogias**, Ed Bugnion, Boris Grot  
ASPLOS 2021

*Bypassing the Load Balancer Without Regrets*  
**Marios Kogias**, Rishabh Iyer, Edouard Bugnion  
SoCC 2020

*HovercRaft: Scalability and Fault-tolerance for  $\mu$ s-scale Datacenter Services*  
**Marios Kogias**, Edouard Bugnion  
Eurosys 2020 **Best Student Paper Award**

*R2P2: Making RPCs first-class datacenter citizens*  
**Marios Kogias**, George Prekas, Adrien Ghosn, Jonas Fietz, Edouard Bugnion  
Usenix ATC 2019

*Lancet: A self-correcting Latency Measuring Tool*  
**Marios Kogias**, Stephen Mallon, Edouard Bugnion  
Usenix ATC 2019

*ZygOS: Achieving Low Tail Latency for Microsecond-scale Networked Tasks*  
George Prekas\*, **Marios Kogias\***, Edouard Bugnion (\*equal co-authors)  
SOSP 2017

**WORKSHOP  
PUBLICATIONS**

*Tail-tolerance as a Systems Principle not a Metric*  
**Marios Kogias**, Edouard Bugnion  
APNet 2020

*Flow Control for Latency-Critical RPCs*  
**Marios Kogias**, Edouard Bugnion  
KBnets@SIGCOMM18

**POSTERS**

*SLOG: Your switch is also your load-generator*  
**Marios Kogias**, Martin Weber, Edouard Bugnion  
NSDI 2020

*Measuring Latency: Am I doing right?*  
**Marios Kogias**, Christos Kozyrakis, Edouard Bugnion  
NSDI 2017

<b>TEACHING</b>	Principles of Computer Systems (EPFL, CS-522)	Winter 2017,2018,2019
	Introduction to Operating Systems (EPFL, CS-323)	Spring 2019
	Database Systems (EPFL, CS422)	Spring 2018
	Mise a Niveau (EPFL, MAN)	Spring 2017
	Computer Networks (EPFL, COM-208)	Winter 2016
<b>PROFESSIONAL SERVICE</b>	VEE 2021 PC	
	EurosysDW 2021 PC	
	SoCC 2020 mentor	
	ASPLOS 2020 Artifact Evaluation Committee	
	Eurosys 2020 Shadow PC	
	Eurosys 2017 Shadow PC	
<b>AWARDS</b>	External Reviewer for IEEE/ACM Transactions on Networking	
	Eurosys 2020 Best Student Paper Award	
	2019 IBM PhD Fellowship	
	EPFL PhD Fellowship 2015-2016	
<b>GRANTS</b>	Microsoft Swiss JRC, Project: TTL-MSR (co-PI)	
	Usenix Student Grant to attend NSDI 2017	