



# Research & Development Summary

**Research** Published at top systems conferences ([NSDI'18](#), [CoNEXT'19](#), [NSDI'22](#)) and journals ([ACM TOCS'21](#)). My research is featured in the [ACM Technews](#), [PHYS.ORG](#), [ECN](#), [KTH](#), and [APNIC](#). Reviewer for scientific journals (e.g., IEEE/ACM Transactions on Networking). Since 2010, I have participated in 12 (mainly EU) research projects.

**Development** [Module owner](#) and main contributor to the industrial-grade network operating system [ONOS](#) and the [Data Plane Development Kit \(DPDK\)](#). Co-leading open source projects in the area of NFV, such as [FastClick](#), Metron's [control](#) and [data](#) planes, as well as [RSS++](#) and [NICBench](#).

## Experience

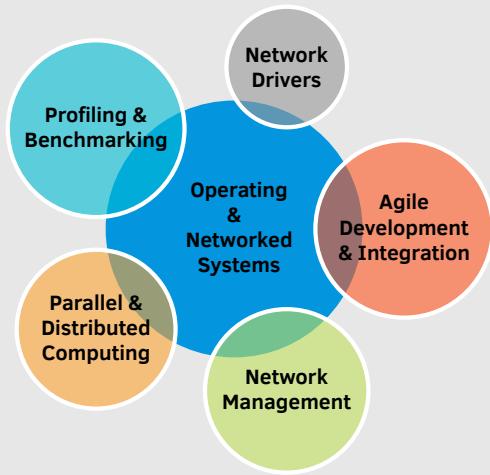
Nov. 2019 Present	<b>SDN/NFV R&amp;D Engineer</b>	<b>UBITECH</b>
	<ul style="list-style-type: none"> <li>SDN and NFV development for the <a href="#">Maestro</a> Cloud orchestrator.</li> <li>Research and development activities in the context of programmable cloud-native networked systems and 5G networks.</li> </ul> <p><u>Tools:</u> Kubernetes, OpenStack, ONOS, Stratum (P4), DPDK, OVS, and NETCONF/YANG.</p> <p><u>Hardware:</u> AMD EPYC, 100GbE Xilinx Alveo SmartNICs, 400GbE Intel Tofino-2 P4 switch, NVIDIA JETSON GPUs, and Amarisoft 5G.</p>	
Oct. 2019 Sep. 2020	<b>Post Doctoral Researcher</b>	<b>KTH NSLab</b>
	<ul style="list-style-type: none"> <li><a href="#">Reframer</a> packet scheduler for low latency Internet services.</li> <li>Benchmarked the hardware classifiers of 100-200 GbE Mellanox network cards (NICs).</li> </ul> <p><u>Tools:</u> DPDK, Click, OVS, Mellanox drivers, and DevOps.</p> <p><u>Hardware:</u> Intel architectures and Mellanox Smart NICs.</p>	
Feb. 2019 Oct. 2019	<b>Military Service</b>	<b>Computer Science and Research Division @ Greek Army</b>
	Networked systems engineer at the Department of Networking.	
Oct. 2018 Dec. 2018	<b>Post Doctoral Researcher</b>	<b>KTH NSLab</b>
	<ul style="list-style-type: none"> <li>Integrated NFV service chains with blackboxes at 100 Gbps.</li> <li>Designed <a href="#">RSS++</a> for intra-server load-balancing at 100 Gbps.</li> </ul> <p><u>Tools:</u> Linux, ONOS, DPDK, Click, SR-IOV, KVM, and DevOps.</p> <p><u>Hardware:</u> Intel architectures and Mellanox NICs.</p>	
May 2017 Sep. 2018	<b>Industrial Ph.D. Student</b>	<b>RISE and KTH NSLab</b>
	<ul style="list-style-type: none"> <li>Implemented <a href="#">Metron</a> for NFV service chaining at 100 Gbps.</li> <li>Implemented dynamic scaling techniques for NFV at 10 Gbps.</li> </ul> <p><u>Tools:</u> ONOS, DPDK, Click, OpenFlow, REST, and DevOps.</p> <p><u>Hardware:</u> Intel architecture, Mellanox NICs, &amp; OpenFlow switches.</p>	
Jul. 2014 Apr. 2017	<b>Licentiate Student (Halfway to Ph.D.)</b>	<b>KTH NSLab</b>
	<ul style="list-style-type: none"> <li>Synthesized the internal operations of NFV service chains with <a href="#">SNF</a>, enabling complex service chains to operate at line-rate 40 Gbps.</li> <li>Combined profiling and task scheduling techniques with I/O batching (<a href="#">SCC</a>) to reduce the latency of traversing NFV service chains.</li> </ul> <p><u>Tools:</u> Linux, Perf, Intel PCM, DPDK, ixgbe, Click, OpenFlow, and Git.</p> <p><u>Hardware:</u> Intel architecture, Intel NICs, and OpenFlow switches.</p>	
Oct. 2013 Jun. 2014	<b>Research Assistant</b>	<b>IMDEA Networks</b>
	<ul style="list-style-type: none"> <li>Integrated heterogeneous SDN control planes.</li> </ul> <p><u>Tools:</u> Linux, OpenDaylight, Ryu/POX, Mininet, OpenFlow, and SVN.</p>	
Apr. 2010 Sep. 2013	<b>Research Assistant</b>	<b>NKUA SCAN Lab</b>
	<ul style="list-style-type: none"> <li>Developed machine learning techniques for autonomic network management in heterogeneous wireless networks.</li> </ul> <p><u>Tools:</u> Linux (OpenWrt), Java, REST, and SVN.</p>	

## Georgios P. Katsikas

Ph.D., Computer & Networked Systems

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- [gkatsikas](https://www.scopus.com/authid/detail.uri?authorId=7005522100)

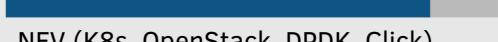
## Technical Skills Overview



## Programming

- Linux • C • C++ • Java • Python

 SDN (ONOS, Stratum, NETCONF/YANG)

 NFV (K8s, OpenStack, DPDK, Click)

- Git • Docker • Helm • Ansible

## Education

### Ph.D., Computer & Networked Systems

KTH Royal Institute of Technology  
Dep. of Communication Systems  
2014 - 2018 | Stockholm, Sweden

### M.Sc., Comm/tion Systems & Networks

National & Kapodistrian University of Athens  
Dep. of Informatics & Telecommunications  
2010 - 2012 | Athens, Greece

### B.Sc., Informatics & Telecommunications

National & Kapodistrian University of Athens  
Dep. of Informatics & Telecommunications  
2005 - 2010 | Athens, Greece