



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 been participating in 17 (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 SDN & NFV: [ETSI TFS](#), [FastClick](#), Metron's [control](#) and [data](#) planes, as well as [RSS++](#) and [NICBench](#).

Experience

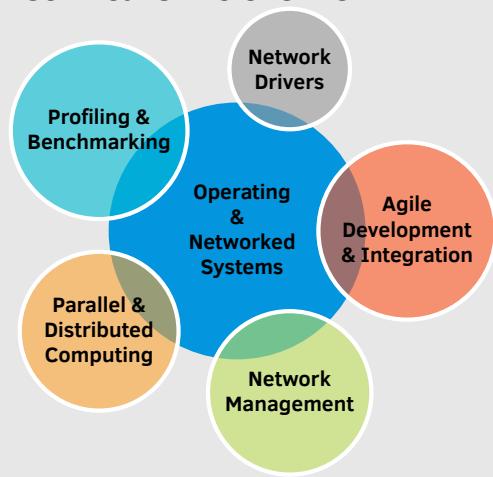
Nov. 2019 Present	Technical Project Manager & Product Owner UBITECH
	Mission: Design & implement a state-of-the-art service and resource orchestrator for modern 5G and beyond infrastructures using: <ul style="list-style-type: none"> Standardized TM Forum service and resource APIs. Integration with a standardized OSS titled ETSI OpenSlice. Infrastructure as Code tools (OpenTofu, Argo-CD, git, & more). A cloud-native 5G software stack. An SDN fabric in P4 through contributions to ETSI standards. <u>Tools</u> : Kubernetes, ProxMox, OpenTofu, gitops, P4, DPDK, Open5GS. <u>Hardware</u> : AMD EPYC architecture, 200 GbE NVIDIA Bluefield-2 and 100 GbE Xilinx Alveo SN 1000 SmartNICs, 400 GbE Intel Tofino-2 P4 switch, NVIDIA JETSON GPUs, and Amarisoft & ETTUS 5G hardware.
Oct. 2019 Sep. 2020	Post Doctoral Researcher KTH NSLab
	<ul style="list-style-type: none"> Reframer packet scheduler for low latency Internet services. Benchmarked the classifiers of 100-200 GbE Mellanox NICs. <u>Tools</u> : DPDK, Click, OVS, Mellanox drivers, and DevOps. <u>Hardware</u> : Intel architectures and Mellanox Smart NICs.
Feb. 2019 Oct. 2019	Military Service Computer Science and Research Division @ Greek Army Networked systems engineer at the Department of Networking.
Oct. 2018 Dec. 2018	Post Doctoral Researcher KTH NSLab
	<ul style="list-style-type: none"> Integrated NFV service chains with blackboxes at 100 Gbps. Designed RSS++ for intra-server load-balancing at 100 Gbps. <u>Tools</u> : Linux, ONOS, DPDK, Click, SR-IOV, KVM, and DevOps. <u>Hardware</u> : Intel architectures and Mellanox NICs.
May 2017 Sep. 2018	Industrial Ph.D. Student RISE and KTH NSLab
	<ul style="list-style-type: none"> Implemented Metron for NFV service chaining at 100 Gbps. Implemented dynamic scaling techniques for NFV at 10 Gbps. <u>Tools</u> : ONOS, DPDK, Click, OpenFlow, REST, and DevOps. <u>Hardware</u> : Intel architecture, Mellanox NICs, & OpenFlow switches.
Jul. 2014 Apr. 2017	Licentiate Student (Halfway to Ph.D.) KTH NSLab
	<ul style="list-style-type: none"> Synthesized the internal operations of NFV service chains with SNF, enabling complex service chains to operate at line-rate 40 Gbps. Combined profiling and task scheduling techniques with I/O batching (SCC) to reduce the latency of traversing NFV service chains. <u>Tools</u> : Linux, Perf, Intel PCM, DPDK, ixgbe, Click, OpenFlow, and Git. <u>Hardware</u> : Intel architecture, Intel NICs, and OpenFlow switches.
Oct. 2013 Jun. 2014	Research Assistant IMDEA Networks
	<ul style="list-style-type: none"> Integrated heterogeneous SDN control planes. <u>Tools</u> : Linux, OpenDaylight, Ryu/POX, Mininet, OpenFlow, and SVN.
Apr. 2010 Sep. 2013	Research Assistant NKUA SCAN Lab
	<ul style="list-style-type: none"> ML tools for autonomic network management in wireless networks. <u>Tools</u> : Linux (OpenWrt), Java, REST, and SVN.

Georgios P. Katsikas

Ph.D., Computer & Networked Systems

- gkatsikas@ubitech.eu
- [gkatsikas.github.io](https://github.com/gkatsikas)
- [georgioskatsikas](https://www.linkedin.com/in/georgioskatsikas/)
- [Google Scholar](https://scholar.google.com/citations?user=QHjwzgAAAAJ&hl=en)
- [gkatsikas](https://orcid.org/0000-0002-1348-8640)
- [gkatsikas](https://www.scopus.com/authid/detail.uri?authorId=7005522100)

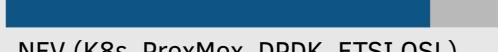
Technical Skills Overview



Programming

- Linux • C • C++ • Java • Python

 SDN (ETSI TFS, P4, K8s SDN CNI)

 NFV (K8s, ProxMox, DPDK, ETSI OSL)

- 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