George Amponis

Electronics & Computer Engineer

g.amponis@outlook.com | +30 6940994122 | linkedin.com/in/georgios-a
0000-0001-6411-0485 | g-ampo | https://g-ampo.github.io/

Education

Apr 2021 – Ongoing | **International Hellenic University** *Ph.D. Candidate: Drone swarms - Routing Techniques*
Thesis: Cross-layer Techniques for UAV Ad Hoc IoT Networks with Emphasis on Efficient Routing

Oct 2016 – Dec 2020 | **International Hellenic University** *B.Sc.: Electronics Engineering - GPA: 7.97/10*
Thesis: Gesture-based quadcopter control

Professional Experience

Dec 2020 – Present | **K3Y Ltd.** *- Software Engineer & Research Associate*

- European research projects - technical developments & software implementations
- Development of networking & cybersecurity simulation/modelling frameworks
- DevOps engineering, dockerization and sand-boxing of software architectures.
- Technical writing for proposals, deliverables, product documentation and partner support

Apr 2020 – Dec 2020 | **ELPRA S.A.** *- Hardware & Software Engineer*

- Firmware development: medical, industrial & power electronics applications & automations.
- Application-specific hardware design: reliance on ESP32, STM32 and PIC

Research Projects

H2020 - SPIDER Platform for testing new security technologies, training defenders, & supporting security decisions.
H2020 - RAINBOW Fog computing platform allowing for scalability, heterogeneity & security in IoT services & applications.
H2020 - SANCUS A software suite for security validation, risk assessment, AI/ML processing, security emulation/testing.
H2020 - 5G-INDUCE Open 5G orchestration platform for the deployment of advanced 5G NetApps, based on MATILDA.
H2020 - DRYADS A holistic fire management ecosystem for the prevention, detection and restoration of disasters.

Technical Skills

Level			**Average**	**Advanced**	**Proficient**
Programming Languages			Java, Go	Python	C/C++
Frameworks & Technologies	**Development & Computing**		AWS, OpenStack	Helm, Docker Swarm	Docker, Docker-Compose, Kubernetes, Linux Scripting
	Modelling, Simulations & Signal Processing		INET, VEINS, SUMO	OMNET++, Simulink	MATLAB, OCTAVE, NS3
	Documentation & Version Control			TortoiseSVN	Git, LaTeX
	CAD	**Electrical/Electronic Design**			KiCAD, Pulsonix, Eagle
		Mechanical Design	Solidworks	Fusion360	

Soft Skills

Languages

1. **German**: C1 - Goethe Zertifikat
2. **English**: C2 - University of Michigan Certificate
3. **Greek**: native language

Business

1. **Technical Leadership**: leading development efforts in numerous tasks of EU-funded H2020 research projects.
2. **Project Management**: overseeing and guiding technical projects since my undergraduate studies.
3. **Multi-tasking**: capable of compartmentalizing tasks effectively, and achieving optimal resource allocation.
4. **Persistence and Passion**: responsibility-driven, working with fervor to achieve and document the desired result.

Publications

2022 [1] G. Amponis, T. Lagkas, M. Zevgara, G. Katsikas, T. Xirofotos, I. Moscholios, and P. Sarigiannidis, "Drones in B5G/6G Networks as Flying Base Stations," *Drones*, 2022.

[2] V. Li, G. Amponis, J.-C. Nebel, V. Argyriou, T. Lagkas, S. Ouzounidis, and P. Sarigiannidis, "Super Resolution for Augmented Reality Applications," *IEEE INFOCOM WKSHPS: A4E 2022: AI/ML for Edge/Fog Networks - A4E 2022: AI/ML for Edge/Fog Networks*, 2022.

2021 [3] G. Amponis, T. Lagkas, P. Sarigiannidis, V. Vitsas, and P. Fouliras, "Object recognition for augmented reality applications," *Azerbaijan Journal of High Performance Computing*, 2021.

[4] G. Amponis, T. Lagkas, P. Sarigiannidis, V. Vitsas, P. Fouliras, and S. Wan, "A survey on FANET routing from a cross-layer design perspective," *Journal of Systems Architectureals*, 2021.

[5] C. Zarakovitis, D. Klonidis, Z. Salazar, A. Prudnikova, A. Bozorgchenani, Q. Ni, C. Klitis, G. Guirgis, A. Cavalli, N. Sgouros, E. Makri, A. Lalas, K. Votis, G. Amponis, and W. Mallouli, "SANCUS: Multi-Layers Vulnerability Management Framework for Cloud-Native 5G Networks," *ARES 2021: The 16th International Conference on Availability, Reliability and Security*, 2021.

2020 [6] G. Amponis, T. Lagkas, P. Sarigiannidis, V. Vitsas, and P. Fouliras, "Inter-UAV Routing Scheme Testbeds," *Drones*, 2020.