Theodoros Kyriakidis

Head of Embedded Software and QA | PhD in Electrical Engineering (EPFL)

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Summary

Engineering leader with 15+ years across research and industry, from mixed-signal computer architectures for the smart grid (PhD, EPFL), to test automation for enterprise networking at Cisco, to growing from QA manager to head of embedded software and QA for the water industry at GWF. ISTQB-certified in Test Management.

Experience

Head of Embedded Software and QA, GWF – Thessaloniki, GR | Lucerne, CH — Sept 2023 – present

- Leading a cross-site team that develops the embedded software of new-generation water meters and communication devices, and a team that assures quality across the company's products.
- Contributed to steady double-digit growth for the last 5 years, by leading an international team of 20+ Engineers across 3 sites.
- Bootstrapped a separate Development Testing team to improve quality across product lines.

QA Manager → Embedded Systems Manager, GWF – Thessaloniki, GR — Aug 2020 – Sept 2023

- Created an Embedded Development and QA Department in Thessaloniki, Greece.
- Launched flagship products Sonico Edge and Sonico Nano.

Test Engineer, Cisco – Lausanne, CH — Jan 2017 – Aug 2020

- Ensured the quality of wireless solutions on the network operating system of Cisco routers, switches and wireless controllers.
- Part of the team that launched Catalyst 9300 Series Switch, Catalyst 9800 Series Wireless Controller, Embedded Wireless Controller.
- Led fully automated, continuously integrated, multi-phase testing: pre-commit sanities, feature testing, regression.
- Treated test infrastructure as a product, with versioning, peer review and QA-of-QA.
- Deep understanding of wireless/non-wireless deployment, configuration, troubleshooting; 3rd level support for key customers.

Electronic Systems Engineer, Hellenic Navy – Thessaloniki, GR — Nov 2015 – Nov 2016

- Military service. Monitored HF and VHF antenna arrays at the Angelochori Transmission Center, Headquarters Command of Eastern Mediterranean.

Education

EPFL, PhD in Electrical Engineering 2010 – 2015

- Explored linear algebra capabilities of analog electronic computing machines.
- Combined analog and digital resources (fixed and synthesized) into computational accelerator architectures for modern power systems and the smart grid, with hardware/software co-design to attach them to conventional host computers.
- SNSF Doc.Mobility fellowship for a 6-month research visit at the Université de Liège (Montefiore Institute), 2014–2015.
- IEEE EPFL Student branch

Aristotle University of Thessaloniki (AUTh), MSc in Electrical Engineering 2004 – 2010

- Specialization in Electronics and Computer Science
- Thesis: GyroScanField Electromagnetic Field Measuring Instrument with Real-Time Visualization
- Multiple scholarships by the National Scholarship Foundation (IKY)
- Part-time network engineer (NOC) and software developer at the university.

Skills and Qualifications

Management: Leadership, Organizational Development, Change Management, Project Management

Programming and Development: Programming (Python, C, C++), Embedded Systems, Release Management

Technology: Water Industry, (Wireless) Network Engineering, Power Systems & Smart Grid, Numerical Analysis & Simulations

Quality Assurance: DevOps, HIL testing, CI/CD, automated functional and non-functional testing, static & dynamic analysis, pipelines

Certifications: ISTQB Certified Tester - Test Management, Cisco Security Green Belt, Advanced Learning Algorithms, WSET Level 3 (wine)

Languages: Greek (native), English (prof.), French (prof.), German (bas.), Italian (bas.), Spanish (bas.)

Memberships: ACM, IEEE (incl. Smart Grid Technical Community, Power & Energy Society), PMI, Technical Chamber of Greece

Extra-curricular: Sports (football, basketball, running), Music (piano, greek, vocal), Literature, Motorboats (licensed), Sailing, Wine

Selected Publications

- L. Fabre, G. Lanz, **T. Kyriakidis**, et al., "An ultra-high speed emulator dedicated to power system dynamics computation based on a mixed-signal hardware platform", *IEEE Transactions on Power Systems*, 2013.
- **T. Kyriakidis**, G. Lanz, D. Sallin, et al., "A mixed-platform framework for dynamic stability assessment", *IEEE PES General Meeting*, 2013.
- **T. Kyriakidis**, G. Lanz, R. Cherkaoui, M. Kayal, "A transient stability assessment method using post-fault trajectories", *IEEE Grenoble Conference*, 2013.
- 15+ journal and conference papers in total, with a best paper and a best poster award; full list on Google Scholar.