

Thomas Kogias

IT Educator & Developer

Syros, Greece · thomas@kogias.org · kogias.org

University IT lab educator for around a decade, and a developer: I build websites, web applications, and tools, some for university departments and courses, some for people around me. Beyond the web, I work on broader software and IT problems. Technical by nature, a communicator by training: I enjoy explaining technology and I do it effectively, in writing and in person, to technical and non-technical audiences alike.

EXPERIENCE

2018 – present

Developer

Independent projects

Websites and web applications, built and maintained end to end. Case studies on the [Projects](#) page.

- Varied IT problem-solving alongside the web work: network troubleshooting, system setups, ad-hoc technical help

2017 – present

IT Laboratory Instructor

University of the Aegean, Department of Product and Systems Design Engineering

Covering the informatics teaching needs of the undergraduate curriculum, seconded from the Ministry of Education: teaching courses, theory and laboratories.

- Courses taught:
 - **Informatics** (HTML5, CSS)
 - **Programming Technologies and Methodologies** (C#)
 - **Information Systems Design and Development** (C#, object-oriented programming)
 - **Web Design and Programming** (Node.js)
 - **Mobile Application Development** (Android, Java)
- Member of the SmartMove lab (maritime robotics, intelligent transportation systems, maritime informatics): hands-on across the lab's autonomous-vessel work, from assembly, wiring and sea trials to simulation, research projects, and the lab's website (see [Projects](#))
- Autonomous fleet work: eight identical 1 m surface vessels (Pixhawk autopilot, Raspberry Pi 5 companion computer) plus larger research vessels, all on ArduPilot; vessel logic in Python (pymavlink, DroneKit), swarm and obstacle-detection experimentation; a BlueROV2 Heavy underwater ROV (ArduSub)
- International maritime summer school (annual): organizing team, co-teach 3 labs, lead-teach the 2 software labs (ArduPilot simulation; companion-computer integration, a progressive Python project arc from telemetry to formation keeping), with published notes and a public code repository; ~45 international postgraduate students over 2 intensive weeks
- Administration and development of the Interactive Systems Design laboratory infrastructure, hardware and software
- Co-designed and built the department's new website on Drupal 8 (2018) and have run it since; its static successor is in development (see [Projects](#))
- Educational material on the e-class platform; support for student theses

2006 – 2017

Secondary Education IT Teacher (PE86)

Greek Ministry of Education

Permanent post, appointed through the 2005 ASEP national competition. Taught informatics at a general upper secondary school, a vocational upper secondary school, a special education school, and a primary school.

- Technician at the Cyclades Centre for Informatics and New Technologies (KEPLINET) for four years: maintenance and upgrades of computers and networks across the prefecture's school and administrative units
- Installation and maintenance of a 104-endpoint videoconferencing network across the Cyclades

- Co-organized two international conferences on ICT in education, held in Syros
 - Website development and maintenance
- 2003 – 2004 **Stagiaire, Information Society DG (software technologies)**
European Commission
Traineeship in Brussels, in the open source software field.
- Analysis and review of EU-funded open source software projects
 - Organized a conference promoting open source software adoption in EU public administrations
 - Developed and maintained the Commission's open source website
- 2000 – 2001 **Software Engineer**
ACN.gr (Altec Group)
Member of the team designing, developing, and supporting consumer web applications running 24/7 with thousands of concurrent users.
- Java J2EE, C++, Oracle DBMS, Apache/Jakarta projects, HTML/Velocity templates
 - Dynamic websites (PHP, Java); database development and administration (Oracle PL/SQL, MySQL)
 - Wrote documentation and trained the customer support department

COMMUNITY

- 2025 – 2026 **Archive rebuild and operation**
basketforum.gr community
Rebuilt the community's lost forum from an emergency crawl into a fully static, searchable archive: 26,000 pages and 880,000 posts (2005 to 2019) with full-text and member search, hosted on Cloudflare Workers. Live since January 2026 (see Projects).

EDUCATION

- 2026 – present **PhD candidate, Artificial Intelligence in Programming and Robotics Education**
University of the Aegean, Department of Product and Systems Design Engineering
Thesis: 'Artificial Intelligence Tools in Programming and Robotics Education: Pedagogical Framework, Assessment and Instructional Design'
- 2001 – 2002 **MA, Communications Studies**
University of Leeds, UK
Dissertation (distinction): 'A critical investigation of the Open Source software phenomenon'
- 1997 – 2000 **BSc (Hons), Computer Science**
University of Kent, UK
Final-year project: a dynamic web application for storing and managing conference paper submissions (PHP, Java, MySQL)

PUBLICATIONS

- 2022 **Assisted Reality as an enabler for resilient remote learning during COVID-19**
IEEE 28th International Conference on Engineering, Technology and Innovation (ICE/ITMC) & 31st IAMOT Joint Conference
First author. A framework for remote maritime vocational training and examination using assisted reality devices, evaluated in real class conditions; presented at the conference in France. The project included a custom Android app (Java) I built for the RealWear HMT-1 assisted reality glasses.

2024	The Aegean Ro-Boat Race: A Regatta to Accelerate Innovation in Marine Robotics and Autonomous Vessels IEEE Aerospace and Electronic Systems Magazine
2024	Collection: The Aegean Ro-Boat Race 2023 IEEE Data Descriptions
2023	Building an autonomous boat: a multidisciplinary design engineering approach IEEE International Workshop on Metrology for AeroSpace (MetroAeroSpace)

SKILLS

Development: HTML & CSS, JavaScript, Node.js, PHP & MySQL, Static site generators (Jekyll, Astro), Drupal, WordPress, C#, Python, Git, Cloudflare (Pages, Workers)

Modern AI Tooling: Claude Code: daily use since 2025, custom skills, MCP integrations, Scope: every kind of project, not only development, Configuration management: versioned setup, reproducible across machines, Workflow: context & memory management, session continuity, Safety guardrails: permissions, hooks, sandboxing, Observability: session logs, statistics, searchable history, Local open-weight models: speech transcription and translation, voice analysis

Teaching & Technical Communication: University lab instruction, theory and laboratories, Course materials and e-learning content, Technical documentation, Technology writing: years of articles in the Greek IT press, including the Greek edition of Linux Format, Conference co-organization

Marine Robotics & Embedded Systems: ArduPilot (Rover, ArduSub, SITL simulation), Pixhawk and Cube autopilots, Raspberry Pi companion computers, Python vessel logic (pymavlink, DroneKit), MQTT fleet telemetry, Mission Planner, QGroundControl

IT Problem-Solving: Windows and Linux administration, Computer lab fleets: monitoring, security, access control, backup strategy, School and university network support, Videoconferencing infrastructure, Hardware troubleshooting

LANGUAGES

Greek: Native

English: Near-native

French: Working knowledge

INTERESTS

Sport: cycling, running and open-water swimming; triathlons almost every year since 2012 (sprint and Olympic distance); bike touring; several 200+ km audax rides; mapping trails and cycling routes

Music: drums, years of playing in amateur bands, rehearsing and performing live