



Costas Papanicolaou

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PROFILE

Senior software engineer with over 10 years of commercial experience building and scaling backend systems, APIs and cloud services. Specialised in **Python**, **distributed microservices** and **AWS**, with recent focus on re-architecting core services of a **SaaS cybersecurity platform** into multi-tenant systems. MSc in Information Security (UCL) and a track record of delivering production software for clients including Netflix, Amazon, Vodafone and Deloitte.

WORK EXPERIENCE

SENIOR SOFTWARE ENGINEER

May 2024 – Aug 2026

TRG Solutions – *Limassol, Cyprus*

- Owned and maintained the **critical backbone services** of a **SaaS cybersecurity platform**, including Cases & Targets, Billing, IAM, Notification and Reporting.
- Re-architected these services into **multi-tenant systems**, significantly reducing infrastructure cost by removing per-tenant duplication, while optimising performance and reliability.
- Built and maintained event-driven services with **FastAPI**, **Kafka**, **MongoDB** and **Pydantic**, combining new feature delivery with production support of business-critical systems.
- Introduced **AI agents (Claude Code)** and **AI Skills** into the team's daily workflow, measurably accelerating development and code review.
- Worked in a small, high-ownership team of 4–5 engineers, collaborating closely with the team lead and QA across interdependent services.

SOFTWARE DEVELOPMENT SPECIALIST

Mar 2022 – May 2024

Vubiquity – *Limassol, Cyprus*

- Python Specialist** in the Content Engineering Team of a **global media services provider**, responsible for delivering high-quality, error-free video content to clients including Netflix, Amazon, Google and Hulu.
- Built backend services on **AWS serverless technologies** — Lambda, API Gateway, SQS, DynamoDB and Step Functions.
- Delivered prototype solutions for video analysis, encoding and localisation across three SCRUM teams, and developed UI features in **React.js**.
- Mentored** junior developers and ensured they stayed on track with their deliverables.

SENIOR FULL STACK DEVELOPER

Jun 2020 – Mar 2022

Phoebe Research and Innovation – *Nicosia, Cyprus*

- Developed **IoT monitoring and optimisation platforms** at an R&D startup, in collaboration with the KIOS research centre at the University of Cyprus.
- Built backend systems in **Python**, **Django REST Framework** and **InfluxDB** for research projects in smart buildings and water analytics.
- Developed front-end interfaces in **Vue.js** and owned all **Docker** server deployments.

SENIOR FULL STACK DEVELOPER

Nov 2018 – Jun 2020

Cocoon Creations – *Nicosia, Cyprus*

- Delivered web and mobile applications at an **award-winning development firm** for clients including Deloitte and JCC.
- Developed the commercial **Python/Django** web application for London-based startup “Racecheck”, including its front end in HTML, jQuery and Bootstrap.

SOFTWARE DEVELOPER

Mar 2016 – Nov 2018

Amdocs – *Limassol, Cyprus*

- Developed the **ordering application of Vodafone Ireland** in a SCRUM team of 5, working extensively with **Java**, **REST APIs** and complex **Oracle** queries.
- Supported Vodafone in resolving production defects under tight delivery deadlines.

SOFTWARE DEVELOPER

Oct 2014 – Mar 2016

Interoute Communications – *London, UK*

- Developed commercial web applications such as the “Network Map” in **Python**, HTML and JavaScript for the operator of Europe’s largest network and cloud services platform.
- Contributed to internal **Information Security** projects, including the audit system of Interoute’s cloud platform.

EDUCATION

MSC INFORMATION SECURITY

Sep 2012 – Sep 2013

University College London – *London, UK*

- **Modules:** Cryptography, Computer Security, Information Security Management, Systems Requirements Engineering.
- **Dissertation:** “A novel authentication solution” — analysed the security and usability of a novel authentication scheme and built its prototype web application.

BSC COMPUTER SCIENCE

Sep 2009 – Jul 2012

University of Surrey – *Guildford, UK*

- **Achieved Upper Second Class Honours (2:1, 69%).**
- **Modules:** Software Engineering, Web Applications Development, Data Structures and Algorithms, Databases, Web Applications Security.

TECHNICAL SKILLS

- **Languages:** Python, Java, JavaScript, SQL, Bash
- **Backend & APIs:** FastAPI, Django / Django REST Framework, REST APIs, Kafka, event-driven microservices, multi-tenant architecture, Pydantic
- **Cloud & DevOps:** AWS (Lambda, API Gateway, SQS, DynamoDB, Step Functions), Docker, Git, CI/CD, Linux
- **Databases:** PostgreSQL, Oracle, MySQL, MongoDB, DynamoDB, InfluxDB
- **Front-end:** React.js, Vue.js, HTML/CSS, jQuery, Bootstrap
- **AI-Assisted Development:** Claude Code, AI agents and AI Skills for engineering workflows

PUBLICATIONS

- Papanicolaou C., Krol K., Vernitski A. & Sasse M.A. (2015). **“Too taxing on the mind!” Authentication grids might not be for everyone.** HCI International 2015, 3rd International Conference on Human Aspects of Information Security, Privacy and Trust.

ADDITIONAL INFORMATION

- **Languages:** Greek (Native), English (Fluent)
- **Professional Membership:** Member of the British Computer Society (BCS)
- **Interests:** Technology and emerging AI tooling, tennis, basketball and the gym.