Giacomo Zanolli

Passionate about dev, ops, and cyber

(7) civts

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Skills

Programming Rust, TypeScript, JavaScript, Golang, Dart, C, C++, Java, Bash, Python.

Technologies Linux, Docker, Git, CI/CD, Nix/NixOS, Kubernetes.

CyberSecurity Compliance, Risk Assessment, Network Security, Cryptography.

Languages English (professional working proficiency, certified B2 in 2017), Italian (native).

Education

Master's degree in **Computer Science ICT Innovation Cybersecurity**. Grade: 110 with honors / 110. Relevant courses: Applied Cryptography, Network Security, Security Testing, Multimedia Data Security, Advanced Programming, High-Performance Computing.

University of Trento

Sep 2021 - Oct 2023

Bachelor's degree in Computer Science. Grade: 110 with honors / 110.

Relevant courses: Operating Systems, Networking, Web Programming, Algorithms and Data Structures, Programming, Databases, Computer Architecture.

Sep 2018 - Jul 2021

University of Trento

Work Experience

Cybersecurity Specialist at InfoCert Spa

Apr 2024 - Curr

As part of the Cybersecurity Strategy team, I contributed to planning which activities to undertake to strengthen the cybersecurity posture of the company and overseeing their implementation, ensuring compliance with current and upcoming regulations and standards (NIS2, DORA, NIST CSF 2.0, ISO 27001, FNCS).

Intern at InfoCert Spa Apr 2023 - May 2023

Conducted a company-wide analysis of the security measures currently in place, considering the requirements specified in the *Framework Nazionale per la CyberSecurity e la Data Protection* v2 and the *CIS Critical Security Controls* v7 and v8. The primary goal was to validate the effectiveness of the existing security procedures and identify areas where improvements can be made. The results of this analysis will help the organization determine which steps to prioritize to strengthen the company's security posture and maintain continuous compliance with the reference standards.

Junior Research Scientist at Fondazione Bruno Kessler

Oct 2021 - Apr 2023

- Studied and designed Mobile Driving License solutions in collaboration with Istituto Poligrafico e Zecca dello Stato. Compliant with ISO 23220 and ISO 18013-5.
- Enriched the SSO platform of the company adding support for FIDO2/WebAuthn passwordless authentication (Java).
- Consulted in the European project Protector promoting a secure-by-design approach.

Intern at Fondazione Bruno Kessler

Mar 2021 - May 2021

Performed an in-depth study of the WebAuthn standard to produce a proof-of-concept implementation where users can authenticate both in a password-less and a username-less fashion, whilst still retaining the security properties of MFA using FIDO2. The demo consisted of an authentication server, a web client, an OAuth relying party, an OAuth resource provider and a native Android app written in Kotlin.

Intern at Athonet Srl Aug 2017 - Sep 2017

Assisted a web developer in implementing a tool for automated testing of the equipment produced by the company. Specifically, I made the front end of the service.

Projects

- Markhor: A Kubernetes operator that allows the users to manage Secrets securely by leveraging SOPS. Written in Golang and with a complete CI/CD pipeline that includes SAST. Project page: https://github.com/markhork8s/markhor
- Tikify: An Android application I created and maintained on the Play Store for *four years (4400 total downloads, 150 monthly active users)*. Written from scratch in Flutter, it lets its users log in with their Spotify account and find new music releases. In Aug 2024, I retired this app due to increasingly demanding Play Store policies.
- Multiple university projects, most of which developed in a team. Ranging from full-stack web development to embedded programming, high-performance computing and more. Details are available on my website.