

Zach Smith, PhD

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🐙 <https://gitlab.com/ZSmith>

Profile

Cybersecurity expert with a background in research. Independent and fast learner, capable of working well with clients, third parties, and my team. Multiple successful international collaborations in research, work, and hobby projects.

Projects

SWAT: Reborn

Lua, Javascript

2016 – 2020

Videogame project in the Dota2 engine. Full UI design using DOM manipulation. 100k+ lines of code, 300k+ downloads.

Project: M

PowerPC Assembler

2009 – 2013

Community for RAM modification and code injection for the Nintendo Wii. Lead and moderated discussion, developed open source code. 1m+ downloads.

Qualifications and Memberships

Associate of (ISC)²

CISSP Exam

2021

Airlock Gateway Connoisseur

Ergon Informatik AG

2021

HSK Chinese Proficiency Level 3

汉语水平考试

2020

Media Mentions

Luxembourg researchers reveal privacy flaw in e-passports

Luxembourg Times

2019

Classic Warcraft 3 map SWAT ported to Dota 2 custom game, circle complete

PCGamesN

2016

The Best Super Smash Bros. Isn't Made by Nintendo

Wired

2013

History

Security Architect

Zortify

2022 – present

- Implementation and documentation of full ISMS for ISO27001/27701, from initialisation to certification-ready
- Creation and management of Kubernetes environments using infrastructure-as-code and sysadmin responsibilities
- Deployment, documentation and maintenance of software on both dedicated servers and Cloud/HPC environments
- Deployment and operation of open source software including Keycloak IAM, Wireguard VPN, and Wordpress

IT Consultant

jemic

2020 – 2022

- Java development in the Spring framework for an Identity and Access Management solution
- Working directly with clients and third-party service providers in the banking industry
- Creation and maintenance of integration environments, AWS management, Airlock WAF administration, and shell scripts to automate these processes

PhD, Theoretical Computer Science

University of Luxembourg

2016 – 2020

- Research into Formal Methods for analysing Security Protocols
- Published & presented in multiple top conferences, demonstrating vulnerabilities in payment systems, passports and IoT protocols
- Lectured for Bachelor's and Master's level courses in cybersecurity

MSci Mathematics

Imperial College London

2009 – 2014

- Focus on Algebra, Topology and Number Theory

Conference Presentations & Seminars

Security Goals for Path Protocols

2021 | Leiden University

Symbolic Modeling and Verification of Distance Bounding Protocols

2020 | Royal Holloway University of London

Post-collusion Security and Distance Bounding

2019 | CCS

Relations on Security Properties

2018 | Seoul National University

Skills

Programming Languages

Python, Java, Lua, JavaScript

Tools

Kubernetes, Git, SQL, Regex, AsciiDoc

Frameworks and Policy

ISO27001, ISO27701, GDPR, Agile, AI Act