

# 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

### DotaRota

*Lua, Javascript, Jekyll, Python*

2019 – 2021

Open-source project for collaboration and testing of Dota 2 Arcade games. Developed and released multiple libraries and tutorials for community projects. Credited by several published projects.

### SWAT: Reborn

*Lua, Javascript*

2016 – 2020

Dota 2 Arcade game, completely overhauling standard Dota mechanics. Redesigned UI from ground-up, developed new content. 100k+ lines of code, 300k+ downloads.

### Project: M

*PowerPC Assembler*

2009 – 2010

Community for RAM modification and code injection for the Nintendo Wii. Lead and moderated discussion, developed open source code. Engaged in 1-1 meetings with MLG representatives. 1m+ downloads.

## Qualifications and Memberships

### Associate of (ISC)<sup>2</sup>

*CISSP Exam*

2021

### Airlock Gateway Connoisseur

*Ergon Informatik AG*

2021

### HSK Chinese Proficiency Level 3

*汉语水平考试*

2020

## History

### Security Architect

*Zortify*

2022 – present

- Implementation and documentation of controls for the ISMS for ISO27001 and GDPR compliance, from start to finish
- Creation and management of Kubernetes environments and related DevOps infrastructure
- Deployment, documentation and maintenance of security operations for both managed and Google Cloud networks
- Deployment and operation of third-party software including Keycloak IAM and HashiCorp Vault

### IT Consultant

*jemic*

2020 – 2022

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

### Doctoral Candidate

*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

- Second Class Honours, Upper Division
- 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

### Relations on Security Properties

2018 | Seoul National University

## Skills

### Programming Languages

*Python, Lua, Javascript, Java, Bash, C++*

### Tools

*Atlassian Stack, Airlock WAF, Kubernetes*