



Zach Smith

Security Researcher,
Programmer

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About Me

Passionate learner and creator, with multiple successful projects. Community builder and team player – experience working in multiple countries, as well as independently forming international collaborations.

Languages

- English ●●●●●
- Chinese ●●●●●
- Korean ●●●●●

Skills

- Programming Languages
Python, Lua, Javascript, Java/Spring, PowerPC
- Tools
Git, Bash, Atlassian Stack
- Programming Applications
Spring Framework, Cluster Computing, AWS

Hobbies

- Swing Dance
Active Lindy Hopper since 2016
- Boardgames
Chair of ICL Wargames Society, 2010-2013
- Videogames
Former professional SSBM player

History

- 2020 – **IT Consultant** jemmic
Java Development in the Spring framework, maintaining and developing IAM solutions. Client-facing work, including project ownership and delivery.
- 2016 – 2020 **Doctoral Candidate** University of Luxembourg
Research into Formal Modelling of Security Protocols. Published in multiple top conferences. Maintained group website, assisted in multiple courses (teaching, writing and grading).
- 2015 – 2016 **Instructor** Beacon Hill Academy, Korea
Taught students science and computer programming. Classes of multiple sizes and age ranges, including 1-1 sessions at high-school level. Designed own syllabus and lesson plans.
- 2009 – 2014 **MSci Mathematics** Imperial College London
Second Class Honours, Upper Division. Focus on Pure Math - Algebra, Topology and Number Theory.

Selected Publications

- 2019 **Breaking Unlinkability of the ICAO 9303 Standard for e-Passports Using Bisimilarity**
I. Filimonov, R. Horne, S. Mauw, Z. Smith
European Symposium on Research in Computer Security
- 2019 **maTLS: How to Make TLS middlebox-aware?**
H. Lee, Z. Smith, J. Lim, G. Choi, S. Chun, T. Chung, T. Kwon
Network and Distributed System Security Symposium
- 2018 **Distance-bounding protocols: Verification without time and location**
S. Mauw, Z. Smith, J. Toro-Pozo, R. Trujillo-Rasua
IEEE Security and Privacy

Programming Projects

- 2019 – **DotaRota** Jekyll (Ruby), Javascript, Python
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.
- 2016 – **SWAT: Reborn** Lua/Javascript
Dota 2 Arcade game, completely overhauling standard Dota mechanics. Redesigned UI from ground-up, developed new content. 100k+ lines of code, 300k+ downloads.
- 2009 – 2010 **Project: M** PowerPC Assembler
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

- 2020 HSK Chinese Proficiency Level 3 (89%) Hanban Institute
- 2019 Associate Fellowship Higher Education Academy

Media Mentions

- 2019 **Luxembourg researchers reveal privacy flaw in e-passports** Luxembourg Times
<https://luxtimes.lu/luxembourg/38572-luxembourg-researchers-reveal-privacy-flaw-in-e-passports>
- 2016 **Classic Warcraft 3 map SWAT ported to Dota 2 custom game, circle complete** PCGamesN
<https://www.pcgamesn.com/dota-2/swat-warcraft-3-custom-game>
- 2013 **The Best Super Smash Bros. Isn't Made by Nintendo** Wired
<https://www.wired.com/2013/12/project-m-super-smash-bros-mod/>