

Dolière Francis Somé, Ph.D.

2004 Route des Lucioles

06902 Valbonne, France

Tel.: +33 6 98 50 72 92

Email: doliere.some@inria.fr

PROFILE

Postdoc - Formal methods and machine learning for IoT, programming languages and Web security and privacy @ Inria Sophia-Antipolis - Working with Tamara Rezk, HDR

EDUCATION

OCTOBER 2018 **Ph.D.** - *University Côte d'Azur* - Nice, France

Thesis: **Web applications security and privacy**

Contributions:

- Showed and addressed the tension between the Same Origin Policy and Content Security Policy (CSP) security mechanisms
- Provided a tool for deploying efficient CSPs
- Discussed and implemented proposals for extending CSP
- Designed and implemented a third party web tracking protection mechanism for web developers
- Demonstrated privilege escalation and browser fingerprinting due to browser extensions

Jury:

- Pr. Walid Dabbous - Inria - President
- Pr. Davide Balzarotti - EURECOM - Reviewer
- Pr. Andrei Sabelfeld - Chalmers University - Reviewer
- Dr. Christoph Kerschbaumer - Mozilla - Examiner
- Dr. Stefano Calzavara - Università Ca' Foscari - Examiner
- Mr. Mike West - Google - Examiner
- Dr. Nick Nikiforakis - Stony Brook University - Invited
- Dr. Tamara Rezk, HDR - Inria - Advisor
- Dr. Nataliia Bielova, Inria, Co-advisor

SEPTEMBER 2014 **Master** - *University of Nice-Sophia Antipolis* - Nice, France

Program: **Cryptography, Security of Systems and Networks**

Subjects:

- cryptography, proofs and verification
- mobile, cloud, embedded devices security and privacy
- mathematics, logic, formal methods, functional analysis

ACHIEVEMENT: Best score of the promotion

JULY 2012 **Bachelor** - *University of Sciences and Technology* - Oran, Algiers

Program: **Mathematics and Computer Science**

ACHIEVEMENT: Best score of the promotion

EMPLOYMENT

Current	Postdoc - <i>Inria</i> - Nice, France Security of Hop.js applications for the web and IoT Working on formal methods, machine learning for security and privacy in the web, IoT and the Hop.js programming language
NOV 2015 - OCT 2018	Ph.D. student - <i>Inria</i> - Nice, France Web applications Security and Privacy Identified security and privacy threats in web applications and browser extensions. Evaluated their impact via large-scale empirical study. Proposed and evaluated countermeasures with prototypical implementation. Wrote papers independently or collaborated within deadlines
SUMMER 2015	Predoc internship - <i>Inria</i> - Nice, France Analysis of JavaScript constructs used on popular websites Large-scale web data mining and analysis - Developed WEBSTATS to display popular JavaScript libraries, constructs and statistics about the use of CSP and cookies on websites - https://webstats.inria.fr
NOV 2013 - NOV 2014	Apprenticeship - <i>SAP Labs</i> - Nice, France Access and usage control on mobile and cloud data Conducted research in an industrial setting. Implemented the PrimeLife Privacy Policy Language (PPL) as an Android Library. Developed Android and Web applications

SUBMISSIONS AND PUBLICATIONS

- G. G. Gulyás, D. F. Somé, N. Bielova, and C. Castelluccia. **To Extend or not to Extend: On the Uniqueness of Browser Extensions and Web Logins.** *Workshop on Privacy in the Electronic Society (WPES'18)*
- D. F. Somé, N. Bielova, and T. Rezk. **Control What You Include ! Server-Side Protection against Third Party Web Tracking.** *International Symposium on Engineering Secure Software and Systems (EsoS'17)*
- D. F. Somé, N. Bielova, and T. Rezk. **On the Content Security Policy Violations Due to the Same-Origin Policy.** *World Wide Web Conference (WWW'17)*
- F. Di Cerbo, D. F. Somé, L. Gomez and S. Trabelsi. **PPL v2.0: Uniform Data Access and Usage Control on Cloud and Mobile 2015.** *IEEE/ACM 1st International Workshop on Technical and Legal aspects of data pRivacy and Security (TELERISE'15)*

TALKS AT SCIENTIFIC EVENTS

5-8/08/2018	Seminar on Web Application Security - Dagstuhl, Germany
4-5/07/2017	ESSoS International Symposium - Bonn, Germany
19-21/06/2017	8th Workshop on Privacy Protection - Autrans, Vercors
10-11/05/2017	Meeting of ANR (French National Recherche Agency) AJACS Project - Inria Rennes, France
17-20/04/2017	Seminar on Online Privacy and Web Transparency - Dagstuhl, Germany
3-7/04/2017	26e Conference of World Wide Web (WWW2017) - Perth, Australia

26-27/11/2015 Meeting of ANR (French National Recherche Agency) AJACS Project - Inria
Paris, France

OTHER EXPERIENCES AND TRAINING

- 11/2018 Sub-reviewer - *IEEE EuroS&P*
- 04/2018 Sub-reviewer - *Journal of Object Technology*
- 12-16/03/2018 Training *Software development and transfer* - Inria, France
Presentation and practical use of methods and tools for software engineering:
Git(Lab), build tools, continuous integration, agile methodology, SCRUM, intel-
lectual property and copyrights
- 20-22/11/2017 Training on *Advanced C++ Programming* - Inria, France
- 26-28/04/2017 Volunteer at the *2nd IEEE EuroS&P Symposium* - Paris, France
- 11/2016 Sub-reviewer - *32nd ACM SIGAPP Symposium On Applied Computing*
- 24-28/10/2016 Attended the *23rd ACM CCS Conference* - Vienna, Austria
- 03-12/08/2016 Attended the Marktoberdorf summer school on *Dependable Soft-
ware Systems Engineering* - Germany
- 13-15/05/2016 Participation in the *StartupWeekend Nice Sophia-Antipolis*
- 31/03/2016 Training in *Public speaking* - University of Nice Sophia-Antipolis
- 08-12/02/2016 Attended the Winter school *Security and Trust of Next Generation
Enterprise Information Systems (SECENTIS)*- Trento, Italy

SELECTED SKILLS AND QUALIFICATIONS

- **Engineering**
 - **OS:** Fedora, Ubuntu, Raspberry, Windows
 - **Languages:** JavaScript, Node.js, HTML, PHP, C, C++, C#, Python, Java
 - **Databases:** MySQL, SQLite
 - **Frameworks:** SCRUM, Qt, IoT
- **Languages:**
 - French
 - English
- **Qualifications**
 - Oracle Certified Associate, Java SE 7 Programmer, July 2014
 - TOEIC - English for International Communication, score 890/990, May 2014
 - 1st prize national olympics of Mathematics, Burkina Faso - September 2009