

Robin Carpentier

👤 28 y/o | 🇫🇷 French

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Academic Experience

Postdoctoral Researcher

Inria - Petrus team

Jan 2023 - May 2023

Versailles, France

- Extension of the thesis work with a new execution strategy and expanded performance evaluation.

PhD Student

Inria & Paris-Saclay University - Petrus team

Oct 2018 - Dec 2022

Versailles, France

- Privacy-Preserving Third-Party Computations on Secure Personal Data Management Systems.
- Keywords: *Secure Hardware* ; *Trusted Execution Environments* ; *Intel SGX* ; *Database Computation* ; *Data Leakage*.
- Design of execution strategies for efficient data processing while limiting data leakage of computation results.
- Implementation in C++ using the OpenEnclave SDK.

Graduate Teaching Assistant

University of Versailles Saint-Quentin-en-Yvelines

Sept 2018 - Jun 2022

Versailles, France

- 359 hours of class with 30 students, both in person and remote.
- Involved in composing exercises, overseeing student projects and grading tests.
- Disciplines (Bachelor level): C and Python programming ; Relational databases.

Research Intern

Inria - Petrus team

Apr 2018 - Sept 2018

Versailles, France

- Secure and Efficient Data Processing with Intel SGX.
- Study of the security properties offered by Intel SGX and analysis of their performance impact during data computations.

Publications

Data Leakage Mitigation of User-Defined Functions on Secure Personal Data Management Systems

Under submission

Robin Carpentier, Iulian Sandu Popa, Nicolas Ancaux

Journal extension.

An Extensive and Secure Personal Data Management System Using SGX

EDBT 2022

Robin Carpentier, Floris Thiant, Iulian Sandu Popa, Nicolas Ancaux, Luc Bouganim

Also presented at the 2022 CNIL Privacy Research Day and French Conference on Data Management (BDA).

Data Leakage Mitigation of User-Defined Functions on Secure Personal Data Management Systems

SSDBM 2022

Robin Carpentier, Iulian Sandu Popa, Nicolas Ancaux

Also presented at the 2022 French Conference on Data Management (BDA).

Local Personal Data Processing with Third Party Code and Bounded Leakage

DATA 2022

Robin Carpentier, Iulian Sandu Popa, Nicolas Ancaux

Poster: Reducing Data Leakage on Personal Data Management Systems

EuroS&P 2021

Robin Carpentier, Iulian Sandu Popa, Nicolas Ancaux

Education

Doctor of Philosophy: Computer Science

Paris-Saclay University

Oct 2018 - Dec 2022

Versailles, France

- Jury members: Reza Akbarinia, Sébastien Gambs, Mathieu Cunche, Benjamin Nguyen, Patricia Serrano Alvarado, Luc Bouganim.
- Advisors: Nicolas Ancaux and Iulian Sandu Popa.

Master of Science: Computer Science Security

Paris-Saclay University

Sept 2016 - Sept 2018

Versailles, France

- Awardee of a merit scholarship by the DigiCosme laboratory of excellence.
- Diploma awarded with high honors.
- Courses: Cryptology - Systems, Applications and Web Security - Intrusion Detection - Secure Application Programming.

Bachelor of Computer Science

Aix-Marseille University

Sept 2013 - Jun 2016

Aix-en-Provence, France

- Diploma awarded with highest honor (Valedictorian).