# Andrés Sánchez Marín

15 June 1997 Madrid, Spain andres.sanchez@epfl.ch andsanmar.github.io

### **AREAS OF INTEREST**

My main research interest is the development of reliable and optimized software by the correct systems implementations and methods for efficient resulting code. Result of the intersection between the Computer Systems, Security, Programming Languages & Paradigms (specially functional and low level ones), Software Optimizations, Algorithms and Data Structures, Hardware Architecture, Formal Verification and Theoretical Foundations of Computer Science.

## PROFESSIONAL EXPERIENCE

Massachusets Institute of Technology

Research assistant

Analysis of memory compression models

IMDEA Software Institute Research Internship

Madrid, Spain Sep 2018 - Jun 2019

Cambridge, United States

Jun 2019 - Aug 2019

Reasoning about speculative execution attacks and existing proposals for countermeasures Detecting speculative information flows in large code-bases

Distributed Systems Laboratory at UPM

Madrid, Spain

Internship

Sep 2017 - Dec 2017

Designing and implementing the integration between a Elastic Complex Event Processing for Static and Streaming Data and a NoSQL distributed database

Cisco, NBA Madrid, Spain

#### **NBA NetAcad Dream Team member**

Oct 2016

On the NBA Global Games (Madrid). Learning how to do the network infrastructure for the event. Also, helping installing it

## **EDUCATION**

École Polytechnique Fédérale de Lausanne

Lausanne, Switzerland

Master of Science in Computer Science

2019 - 2021

Universidad Politécnica de Madrid

Madrid, Spain

**Bachelor of Science in Mathematics and Computing** 

2015 - 2019

Member of ACM UPM chapter

## **SKILLS**

LANGUAGES Spanish (mother tongue)

English (fluent) — 90 TOEFL iBT

PROGRAMMING Rust, Prolog, Linux, C, Git

Assembly, LATEX, Haskell, Python

ACHIEVEMENTS 8 honors in various subjects on Bachelor's degree

OTHERS CCNA 1 & 2

Free Time Monitor Certification

VOLUNTEER EXPERIENCE Sumac Wasi "Santo Tomás de Aquino" enhancement project during 2018

summer as a collaborator, also doing recreational and learning activities with

a group of 40 kids on a marginal Arequipa (Perú) area.

## **CONFERENCE PUBLICATIONS**

• M. Guarnieri, B. Koepf, J. F. Morales, J. Reineke, and A. Sánchez. Spectector: Principled detection of speculative information flows. In *Proceedings of the 41st IEEE Symposium on Security and Privacy*. IEEE, 2020