

Daniel Filipe Nunes Silva

COMMUNICATION SYSTEMS ENGINEER
SPECIALIZED IN CYBERSECURITY



PERSONALITY

Interests

Specialty Coffee
Watchmaking

Traits

Honesty
Critical Thinking
Enthusiasm

PERSONAL INFO

Location

Fribourg, Switzerland

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LinkedIn

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ABOUT ME

I am a fresh graduate from EPFL in communication systems specialized in cybersecurity. Facing new challenges, learning modern technologies, and working on hands-on projects motivate me. I aim to enable positive change in our digital world using my skills in security and privacy.

EDUCATION

MSc in Communication Systems at EPFL

2019-2022

Strong background in cryptography, software and information security, formal verification, and interest in image processing and machine learning

BSc in Communication Systems at EPFL

2016-2019

Strong background in mathematics, information theory, algorithms, and interest in visual computing and data science

EXPERIENCE

Cryptography Intern at Nym Technologies SA

SEP. 2021-MAR. 2022

Design and implement Rust applications for the Nym network leveraging attribute-based credentials and zero-knowledge proofs.

Software Developer at PROGIN SA

SUMMER 2020

Develop a dedicated construction cost estimating software in C# and the corresponding SQL database for the company.

Research Intern at Kudelski Security

SUMMER 2019

Build a proof of concept for the FENTEC project by extending FFmpeg C source code to perform motion detection on encrypted video streams.

Low-Voltage Systems Developer at EPFLRT

FEB. 2019-MAR. 2020

Integrate several sensors in EPFL's Formula Student racing car in collaboration with the different divisions to allow data acquisition.

PROJECTS

Formally Verified Prefix-Free Codes

Implement a prefix-free encoder-decoder pair in Scala and formally prove the implementation for correctness thanks to the Stainless framework.

Zero-Knowledge Circuit Evaluation with Preprocessing

Implement the ZKB++ protocol featuring KKW preprocessing, which enables privacy-preserving computations, in Go and using the Lattigo library.

Software Security Labs

Practice code audit, unit testing, and fuzzing. Play CTFs such as exploitation, reverse engineering, and forensics.

COMPETENCIES

Programming

Python, Go, Rust, C, C#, Java, SQL
Scala, Stainless, Coq
Linux, Shell Scripting, Git, Vim

Competitions

Google Hash Code 2018, 2019 and 2021
LauzHack 2018
EPFL Santa's Algorithmic Challenge 2017
Swiss Olympiad in Informatics 2016

Interpersonal Skills

Collaboration
Adaptability
Active Listening

Languages

French	Native
Portuguese	Native
English	C1
German	B2