# Guillaume **Nibert**

NETWORK AND SECURITY ENGINEER · PHD STUDENT

*Nano-INNOV Integration Centre, 91120, Palaiseau, France*

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I am a young computer engineer, currently pursuing a PhD in the field of anonymity networks. This project is an opportunity to discover the world of research, the different links between industry and university laboratories, and to provide answers to a contemporary problem.

## Work Experience

**Snowpack**, R&D team                                                                                                       *Palaiseau, France*

NETWORK AND SECURITY ENGINEER | PHD STUDENT                                                                          *2022 - Present*

- Preparation of a PhD thesis in relation with the industry (CIFRE fellowship) whose objective is to evaluate and control the security and anonymity levels of the Snowpack network. The work leads to interactions with the teams of the Snowpack start-up, the Computer Science Laboratory of Paris 6 (LIP6 - Sorbonne University - CNRS) and the Laboratory for Information, Networking and Communication Sciences (LINCS).

**Électricité de France (EDF)**, Industrial Division, Engineering Management and New Nuclear Projects          *Saint-Denis, France*

DATA SCIENTIST ENGINEER APPRENTICE                                                                                        *2018 - 2021*

- Development of a Python tool for exploiting nuclear sector data designed to improve feedback.
- Project management on follow-up documents related to the HPC power plant, the French nuclear power plants and the EPR 2 project for the electrical control/command division (15 engineers).

## Education

**Sorbonne University** (formerly Pierre and Marie Curie University – Paris 6)                                            *Paris, France*

PHD IN COMPUTER SCIENCE          **(*Expected graduation date 2025)**                                                   *2022 - (2025)*

- Thesis topic: evaluation and control of the security and anonymity levels of an anonymisation and security network.

**University of Technology of Compiègne (UTC)**                                                                       *Compiègne, France*

DIPLÔME D'INGÉNIEUR EN GÉNIE INFORMATIQUE (MS IN COMPUTER SCIENCE AND ENGINEERING IN APPRENTICESHIP) · GPA: **4.58/5.00**          *2018 - 2021*

- Courses: network architecture, cloud, Internet of Things, telecommunication, VoIP, intelligent communicating sensors, operational research, combinatorial optimisation, programming language theory, logic programming, human and social sciences, economic and strategic intelligence, English.

**Lycée Jean Dupuy**                                                                                                        *Tarbes, France*

CLASSE PRÉPARATOIRE AUX GRANDES ÉCOLES (CPGE) · PTSI/PT                                                                  *2016 - 2018*

- Two-year undergraduate courses in mathematics, physics, engineering sciences, English, computer science and French philosophy and literature for entrance exams to the French Grandes Écoles.

## Projects

**IoT & cloud computing**, University of Technology of Compiègne                                                      *Compiègne, France*

FIVE-STUDENT UNIVERSITY PROJECT                                                                                       *2020 · 6 months*

- Acquisition of temperature, humidity and luminosity of the environment via sensors using different communication protocols (Wi-Fi and 6LoWPAN). Centralisation, storage and transfer of data via a Raspberry Pi and VMs; tools: Contiki-NG, Python, C and C++.

**Experimental optimisation work**, SNCF Réseau (French National Railway Company)                                         *Paris, France*

TEAM PROJECT WITH THE COLLABORATION OF SNCF RÉSEAU RESEARCH ENGINEERS                                                  *2020 · 6 months*

- Search for an optimal solution minimising the energy consumption of a TGV while respecting non-negotiable constraints (respecting the train schedule, intrinsic characteristics of the train, characteristics of the tracks and physical characteristics of the environment).

## Skills

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| **Languages** | French (native speaker), English (B2 - TOEIC: 810/990), German (B1), Korean (basic knowledge) |
| **Theory** | Anonymity networks, Proofs in the Dolev-Yao model (Tamarin, Scyther), Distributed algorithms, Cryptography |
| **Operating systems** | Unix-like systems (Linux, macOS), Windows (+WSL2 & WSLg), Android, iOS |
| **Programming & tools** | Python, shell, C, C++, Git, D-Bus, X/Wayland, HTML, Java, PHP, SQL, x86 assembly notions |
| **Networking, cloud & IoT** | Nginx/Apache, Docker, QEMU, nftables, Asterisk, Proxmox, OpenStack, Arduino, Raspberry Pi, Contiki-NG |

## Miscellaneous

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| **New technologies** | Home automation, IoT, networking and cybersecurity |
| **Associative commitment** | IT manager of a cultural association on China |
| **News** | Scientific news; political, economic and social news |
| **Sport and leisure** | Karate-do, ski, running and cinema... |