DORIAN BACHELOT

Student

Driver's license

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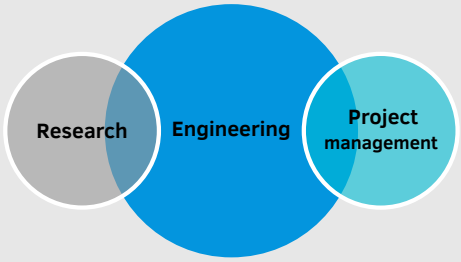
dorianbdev

Skills

Overview



Details

- **Software**

Visual studio, Android studio, Wamp, Vim, UE4, Unity, Jetbrains solutions, GDB.

- **Programming languages**

C++, C, Java, Python, CMake, LaTeX, PHP, Javascript, SQL, R.

- **Other**

Deep learning, OpenGL, Reverse engineering, Git, MariaDB/MySQL, Windows, Linux, Android, Docker, CI/CD pipeline, Django, NodeJS.

Languages

Spanish : Limited working proficiency

A2

English : Full professional proficiency

TOEIC: 905 | DET: 120

Hobbies

- Programming
- Rugby
- Astronomy
- Electronic
- Travel
- Research

Availability

April 2021 - July 2021 (4 months)

I am a hard-working and ambitious Digital Science student in France with a great passion for cybersecurity research. I am currently working on the research subject of hardware reverse engineering. I love learning new skills and sharing my knowledge with others.

Education

Engineering Degree

ESIEA, Laval, France

2017 - present

Currently in my 4th year, specializing in cybersecurity.

Baccalaureate

Réaumur, Laval, France

2013 - 2017

Baccalaureate in scientific series with engineering sciences specialty and I.S.N. (Computer science and digital) option. With honors.

Experience

Scientific and technical projects

ESIEA, Laval, France

2018 - present

» Conception of a 3D positioning tool for IoTs inside a building, using Wifi and Bluetooth and developed from frame parsing in C to a visual result implemented with Qt in C++.
» Creation of a neural network (Keras / Python) for film identification from a textual description via a Web interface (Backend Django / Frontend VueJS).
» Conception of a multiplatform and dependency-free C++ library ("from scratch") for the creation of convolutional neural networks.

In charge person in a gas station

Total

July 2018 - August 2018

Summer work in a Total gas station (managerial position).

Research

Research projects

Laval, France

2019 - present

Research works in collaboration with a French researcher and an international laboratory on the hardware reverse-engineering theme.

» Writing of two additional articles on silicon chip hardware reverse engineering.
» Forking of Degate, a silicon chip reverse engineering software in C++, ported it for a multiplatform use (Windows, Mac and Linux) and made numerous conceptual improvements to the core of the software.
» Working with sector actors for chip analysis and community animation.

Research projects - Laboratory (C + V)°

ESIEA, Laval, France

October 2018 - June 2019

Worked on hardware reverse engineering and cryptography at the Laboratory of Cryptology and Operational Virology (C + V)°. This research work focused on silicon chip hardware reverse engineering and cryptanalysis.

» Writing of two articles on silicon chip hardware reverse engineering.
» Analysis of a cryptographic security flaw in a silicon chip.

Publications

"Hardware reverse engineering : access to silicon – State of the art of silicon chip decapsulation and delayering methods", Hackable 31, pp. 98-107, 2019.

"Hardware reverse engineering : understanding the silicon – State of the art of silicon chip analysis methods", Hackable 31, pp. 108-114, 2019.

"The cost of hardware reverse engineering – Required equipment and associated risks", Hackable 32, pp. 106-115, 2019.

"Hardware reverse engineering protection – State of the art of existing protection methods", Hackable 33, pp. 68-83, 2020.