

# Computer science student

Maxime Pinard

👤 22 years old  
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*Student in the final year of a computer science Engineer and Master's degree program*

## Education and qualifications

### Université du Québec à Chicoutimi

Master in computer science

Currently in 3rd year, for a double degree with UTBM

### Université de Technologie de Belfort-Montbéliard

Computer science engineer diploma, imaging specialty, (eq. Master of Science)

3rd year done at UQAC for a double degree

### Université de Technologie de Belfort-Montbéliard

DEUTEC

Preparatory classes before the specialization

### Lycée Louis Aragon (high school)

Baccalauréat with major in maths, with honours

### Saguenay, Quebec, Canada

2018

### Belfort, France

2016

### Sèvenans, France

2014

2016

### Héricourt, France

2011

2014

## Languages

**French:** Native language

**Spanish:** Moderate level

**English:** B2 (BULATS 68), Professional working level

**Japanese:** Basic level

## Computer skills

**Languages:** C++, C, Java,  $\LaTeX$ /TikZ, Python, Bash, CUDA, SQL, HTML/CSS, Assembly, VBA...

**Methods/Tools:** Agile, Unit tests, Design patterns, UML, BPMN, git, CMake, Make, Maven, Regex

**Metaheuristics:** Tabu search, simulated annealing, genetic algorithms, ant colony optimization algorithms

**Libraries:** boost, fmt, spdlog, OpenGL, OpenCV, OpenMP, MPI, GTest, Catch2, Capstone, Keystone, Json, SFML, ImGui, GLFW, GLM, libmpg123, JavaFx, JUnit4

**System administration:** GNU/Linux (Debian 8), personal server for Java EE and Docker web services hosting

**IDE:** Visual Studio, JetBrains IntelliJ IDEA and CLion, Eclipse

## Work experiences

### Ambulances Phoenix, 2 months

Ambulance technician, Patient care and transportation

### Héricourt, France

07/2018 - 08/2018

### Direction Générale de l'Armement Maîtrise de l'Information, 6 months

Intern

### Bruz, France

08/2017 - 01/2018

- Work on GenDbg, a multi languages / OS / architecture debugger:

Development in C of a disassembly module for MIPS architectures and the associated unit tests

- Work on YaCo, an IDA Pro plugin enabling collaborative reverse-engineering using Git:

Ported to C++ and improved Git repository management and IDA events handling

### JAB France, 1 week

Activities supervisor, Camp of 40 young people, team of 15 supervisor

### Evolène, Switzerland

02/2016

### JAB France, 1 week

Activities supervisor, Camp of 50 young people, team of 20 supervisor

### Contamines, France

02/2015

### Souchier SAS, 4 weeks

Intern, Installation of gaskets and assembly of smoke evacuation systems

### Héricourt, France

01/2015

## Others qualifications

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- French driving license
- PSC1, *French first aid certification*

## Projects

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### Personal.....

- Music player [C++, ImGui, SFML, spdlog, libmpg123] *MagicPlayer*
- Number base converter, example ImGui/SFML [C++, ImGui, SFML] *BaseConverter*
- Console graphical library for Windows and Unix based systems [C] *ConsoleControl*
- Dungeon crawler with procedural levels generation [Java, JavaFx] *Raoul-the-Game*
- $\LaTeX$ /TikZ implementation of the UTBM internship report covers *utbm-latex-internship-report-covers*
- $\LaTeX$ /TikZ Beamer implementation of the UTBM presentation theme *utbm-beamer-theme*
- Multiplayer Snake like game (local network) [C++, SFML] *PapraGame*

### Research.....

- Hyperplanes calculator in dimension 4 finite geometries, (performance oriented) [C++] *HyperplaneFinder*  
> *publication [1]*

### Internship.....

- Hex-Rays IDA collaborative reverse-engineering plugin [C++, GTest, IDA] *YaCo, Internship report (fr)*
- Assembly / disassembly module for MIPS processors assembly code [C, Capstone, Keystone, GTest] *Internship report (fr)*

### School.....

- Construction and render of a 3D parametric object with OpenGL [C++, GLFW, ImGui] *ParametricObjectsConstruction*
- MiniMetro clone: subway management simulator [Java, JavaFx] *MagicMetro*
- Pogo game with MinMax/AlphaBeta AI [C++, ConsoleControl] *Pogo*
- Multi-users file storage server [C++, SFML]

## Publications

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[1] [Veldkamp Spaces of Low-Dimensional Ternary Segre Varieties](#), [[not yet published]] (2018)  
*Metod Saniga, Jérôme Boulmier, Maxime Pinard, Frédéric Holweck*

## Interests

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**Computer science:** New programming paradigms, procedural generation, operational research, software optimization, cryptography and the evolution of quantum computing.

**Science:** Mathematics, physical system simulation, quantum physics...

**Sport:** Skiing and winter sports, cycling (mountain biking in a club for 3 years), mountain hiking.