Enzo **Brignon**

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Main skills

- C/C++
- LANGUAGE THEORY
- TEMPORAL LOGICS
- SAT/SMT
- COMPILATION
- OCaml

Experience

Qualification Engeneer   *Kaizen Solutions for Hager Security*

MARCH 2020 — TODAY   *Villard-Bonnot*

- Test plans development from specifications
- Specifications review
- Test plans execution
- Used technologies:
  - Microsoft Azure DevOps Server (TFS)
  - Microsoft Office

Research Engeneer   *TIMA Laboratory (Grenoble INP)*

SEPTEMBER — DECEMBER 2019   *Grenoble*

- Internship work continuation
- Test generation method enhancement
- Used technologies:
  - OCaml
  - Microsoft Z3 SAT/SMT solver
  - Petri Net
  - GRAFCET
  - NuSMV model checker

Research Internships   *TIMA Laboratory (Grenoble INP)*

JUNE 2017 — AUGUST 2017, MAY 2018 — AUGUST 2018, FEBRUARY 2019 — AUGUST 2019   *Grenoble*

See Education

Adapted Holidays Animator   *ALPAS (Association de Loisirs et de Promotion des Activités Sociales)*

2015, 2016 AND 2017 SUMMERS   *Grenoble*

- Shared living space management (housework, cooking…)
- Animator for activities suitable for adults with intellectual disabilities.

Skills

Programming	C/C++, Bash, Ocaml, Ada, Lua, Python, Awk, Assembleur ARM, JAVA
Formal methods	Temporal Logics, Process Algebra, SAT/SMT, model-checking
Compilation	Language theory, syntax and semantic analysis, linker, ELF file format
Hardware architecture	Combinatorial circuits, synchronous sequential circuits, processor architecture
Hardware model	VHDL, SystemC
System	Linux, file system, process, threads, TCP/IP
Distributed computing	OpenMP, MPI, JAVA RMI, RabbitMQ
Data bases	SQL, MongoDB
Tools	Compilation/debug toolchain for ARM/x86, Modelsim, Git, Emacs, Vim, LaTeX
Languages	French, English (reading, writing, speaking)

Formation

2018 — 2019	**Master 2 MOSIG — "Bien" mention**

**Master 2 MOSIG — "Bien" mention
(Master of Science in Informatics at Grenoble)
Third year of magistère in informatics**

*Université Grenoble Alpes, UFR
IM²AG, Saint Martin d'Hères, France*

Master 2 and Magistère internship, TIMA Laboratory (Grenoble)   *February 2019 — August 2019*
   "Towards automated fault tolerance analysis for programmable automata"
Study of nominal and fault test scenario modelling and automatic executable test generation.
Used technologies:
- OCaml
- Microsoft Z3 SAT/SMT solver
- Petri Nets
- GRAFCET
- NuSMV model checker

2017 — 2018   **Master 1 Informatique — "Bien" mention
Second year of magistère in informatics**

*Université Grenoble Alpes, UFR
IM²AG, Saint Martin d'Hères, France*

Magistère internship, TIMA Laboratory (Grenoble)   *May 2018 — August 2018*
   "Solutions to implement safety/security online monitoring for embedded software (2)"
Third Licence year Magistère internship continuation.
Definition and implementation of a more efficient solution online temporal properties monitoring on
ARM processors. Experiments on several case studies.
Used technologies:
- C/C++
- Awk/Sed
- GNU objdump/readelf
- DWARF debug informations

Publication: *"Assertion-based Verification through Binary Instrumentation"*, E.Brignon & L.Pierre,
DATE'2019 - Florence (Italy), March 2019

2016 — 2017   **Licence in informatics
First year of magistère in informatics**

*Université Grenoble Alpes, UFR
IM²AG,Saint Martin d'Hères, France*

Stage de Magistère, Laboratoire TIMA (Grenoble)   *June 2017 — August 2017*
   "Solutions to implement safety/security online monitoring for embedded software (1)"
Study of temporal properties formal specifications for embedded software. Definition and prototyping
of a solution for online monitoring of such properties for ARM processor.
Used technologies:
- C/C++
- Awk/Sed
- GNU objdump/readelf
- DWARF debug informations

2014 - 2016   **First and second year of
Licence "Mathématique-Informatique internationale"**

*Université Grenoble Alpes, DLST,
Saint Martin d'Hères, France*

Mathematic and Informatics formation in english.