

Bruno FERRES

Postdoctoral Researcher

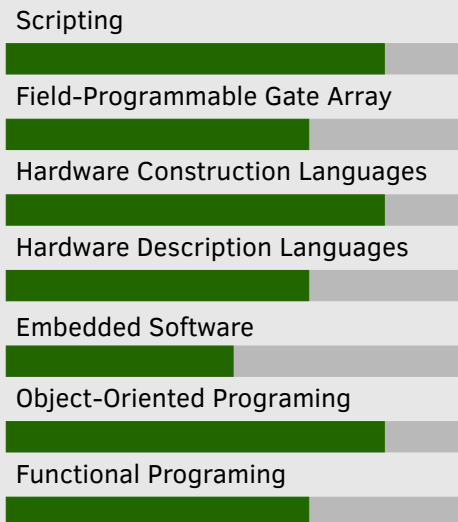
- 62 Rue Saint Laurent
38000 Grenoble
- 06 32 97 05 35
- Linkedin: Bruno FERRES
- bruno.ferres@grenoble-inp.org

About me

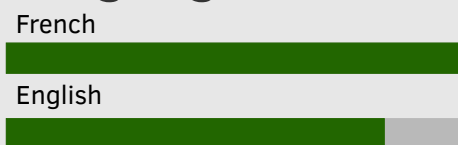
After graduating from Grenoble INP - Ensimag, I began my Ph. D. thesis at TIMA laboratory, working with Hardware Construction Languages at the interface of hardware and software worlds in SLS team.

I now wish to work on system design and exploitation, with a particular focus on how software paradigms can help building efficient hardware systems.

Skills



Languages



I am deeply interested in low level concerns such as hardware implementation, micro-architecture and compilation.

I look forward to keep on the research work, and participate in projects where both technical and communication skills are required.

Education

- since 2018 Ph.D. candidate in Nano Electronic TIMA, Grenoble
Leveraging Hardware Construction Languages for Flexible Design Space Exploration on FPGA.
Directed by Frédéric ROUSSEAU and supervised by Olivier MULLER
- 2018-2021 Teaching and research formation Collège Doctoral de l'UGA
Label "Recherche et Enseignement Supérieur"
- 2017-2018 Master in Cyber Security Université Grenoble Alpes
- 2015-2018 Engineering Degree in Computer Science and Applied Mathematics Grenoble INP - Ensimag
Majoring in Embedded Software and Systems

Publications

- 2021 RSP'2021
Integrating Quick Resource Estimators in Hardware Construction Framework for Design Space Exploration
- 2020 ARC2020
Chisel Usecase: Designing General Matrix Multiply for FPGA

Projects

- 2018-2021 QECE - Quick Exploration using Chisel Estimators Ph. D. PoC
Estimation and exploration framework embedded in an Hardware Construction Framework
<https://gricad-gitlab.univ-grenoble-alpes.fr/tima/sls/projects/qece>
— compilation — functional programming — OOP — scripting —
- 2018-2021 Chisel benchmark Ph. D. Benchmark
Set of computation kernels for qualitative analysis of hardware development novel methodologies
<https://gricad-gitlab.univ-grenoble-alpes.fr/tima/sls/projects/qece-benchmark>
— hardware development — synthesis flows — bibliography —

Experience

- 2018-2021 Teaching Grenoble INP - Ensimag & Polytech Grenoble
Teaching in Computer Science with low level concerns: micro-architecture, C programming, UNIX primitives and assembly languages (MIPS and RISC-V)
- 2018-2020 Representant TIMA
Non permanent searchers representant at TIMA board
- 2018 Organization EEATS
Organization of the *Ph. D. Day* for doctoral school *Electronique, Electrotechnique, Automatique et Traitement du Signal*
- 2018 End of study internship Edifixio, Grenoble
Security redesign of a B2B web platform

Hobbies

volleyball — basketball — cyclism — badminton
piano — bass — guitar — heroic fantasy — science fiction