

Josselin GIET

Ph.D. student in computer sciences

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Studies

- 2020- **PH.D. in computer sciences** , *ÉNS Paris-CS dept*, Automatic verification of tasks scheduler.
Supervised by Xavier RIVAL (Équipe AnTique, Inria/ÉNS)
- 2017-2019 **Master Parisien de Recherche en Informatique**, *ÉNS Paris-CS dept*.
M. Sc in computer science « Mention très bien » (*summa cum laude*)
- 2016-2017 **B.Sc. in Computer Science**, *ÉNS Paris-CS dept. with Paris VII University*.
2016 **passed admission examination**, *École Normale Supérieure de Paris*, student and civil servant.
- 2014-2016 **Classes préparatoires**, *Lycée "Aux Lazaristes", Lyon* , *MPSI-MP(I)**.
- 2014 **High school diploma in science**, *highest honors*.

Skills

- Languages
- French (native)
 - English (Cambridge P.E.T.)
 - German (intermediate)

- Programming languages
- By order of proficiency*
- *OCaml*
 - *C*
 - *Python*
 - *Rust*
 - *Bash*
 - *Assembly*

- Others
- *L^AT_EX*
 - *Git*
 - *Docker*
 - *Coq/Rocq*

Internships

- June-July **Modal satisfiability via SMT solving**.
2017 Supervised by Christophe GARION (ISAE-SUPAERO) and Rémi DELMAS (ONERA)
- March-July **Abstract interpretation of state machine for the Astrée analyzer**.
2018 Supervised by Laurent MAUBORGNE (AbsInt Angewandte Informatik GmbH)
- March-July **Shape analysis by abstract interpretation with sequence predicates**.
2019 Supervised by Xavier RIVAL (AnTique Team, Inria/ÉNS)
- Sept. 2019 - **I/O scheduling policies in the Linux kernel**.
Jan. 2020 Supervised by Gilles MULLER (Équipe Whisper, Inria)
- March-Aug. 2020 **Formally proving code operating system code with benign dataraces**.
2020 Sous la direction de Baptiste LEPERS & Willy ZWAENEPOEL (University of Sydney, Sydney)

Teaching

- 2021-2023 **Semantics and applications to verification**, , ENS, .
Lab sessions and lecture on *satisfiability modulo theory*
- 2023 **Typage & Analyse statistique**, M2 STL, Sorbonne université, .
Lab sessions

Publications

- [DGG18] Rémi Delmas, Christophe Garion, and Josselin Giet. MOLOSS, un solveur pour la satisfiabilité en logique modale. In *Journées nationales de l'intelligence artificielle fondamentale (JIAF'18)*, juin 2018.
- [GMKF19] Josselin Giet, Laurent Mauborgne, Daniel Kästner, and Christian Ferdinand. Towards zero alarms in sound static analysis of finite state machines. In *Computer Safety, Reliability, and Security - 38th International Conference, SAFECOMP 2019, Turku, Finland, September 11-13, 2019, Proceedings*, volume 11698 of *Lecture Notes in Computer Science*, pages 3–18. Springer, 2019.
- [GRR23] Josselin Giet, Félix Ridoux, and Xavier Rival. A product of shape and sequence analysis. In Manuel Hermenegildo and Josef Morales, editors, *Static Analysis*, Cham, 2023. Springer Nature Switzerland.
- [LGZL23] Baptiste Lepers, Josselin Giet, Willy Zwaenepoel, and Julia Lawall. Ofence: Pairing barriers to find concurrency bugs in the linux kernel. In *Proceedings of the Eighteenth European Conference on Computer Systems, EuroSys 2023, Rome, Italy, May 8-12, 2023*, pages 33–45. ACM, 2023.