

Basile Gros

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PhD Student @ VERIMAG

Academic Positions

2023 - Now **PhD in Computer Science**, advised by Pierre Corbineau and Jean-François Monin. UGA, Verimag, France

Studies

2020 - 2023 **Master's degree in computer science**, dual degree, ENSEEIHT, Toulouse, France

2020 - 2023 **Engineering degree in computer science**, dual degree, ENSEEIHT, Toulouse, France

2018 - 2020 **Classe Préparatoire aux Grandes Ecoles, MPSI-MP***, Lycee Champollion, Grenoble, France

Publications

September 2025 Pierre Corbineau, Basile Gros, Jean-François Monin. **Certified Programming with Dependent Types Made Simple with Proxy-based Small Inversions** The Rocqshop 2025, Pierre Boutry; Loïc Pujet, Reykjavik, Iceland

January 2025 Basile Gros, Pierre Corbineau, Jean-François Monin. **Proxy-based small inversions: a case study in metacoq programming** In Adrien Guatto and Marie Kerjean, editors, JFLA 2025 - 36es Journées Francophones des Langages Applicatifs.

Preprints

TYPES 2026 Pierre Corbineau, Basile Gros, Jean-François Monin. **Proxy-based small inversions and their automation**

Teaching

2023-2025 Teaching assistant for **Introduction to logic and automated proving** two consecutive years, L2, DLST UGA

Other Experiences

Research internships

- 2023 18-week internship on integrating user-side instructions to direct compiler optimisation in a toy language (supervised by Pierre-Evariste Dagand at IRIF, Paris)
- 2022 12-week internship on formalizing category theory theorems in AGDA (supervised by Tarmo Uustalu at Reykjavik University, Iceland)
- 2021 8-week internship on working on a serious game about satellites (GarageSat) (supervised by Ramon Gomez-Moya, Federation Open Space Maker)