

# Nicolas Chappe

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## Academic positions

- 2026–2027 **Post-doctoral researcher**, working under the supervision of Tobias (now) Grosser. *University of Cambridge, United Kingdom*
- 2025–2026 **Post-doctoral researcher**, working under the supervision of Sylvain Boulmé and David Monniaux. *CNRS, Verimag, France*
- 2021–2024 **PhD in Computer Science**, advised by Ludovic Henrio and Yannick Zakowski, *Contrat doctoral spécifique normalien – LIP, ENS de Lyon, France*

## Studies

- 2018–2021 **Master’s degree in theoretical computer science**, *ENS de Lyon & Université Lyon 1, France*
- 2017–2018 **Bachelor’s degree in theoretical computer science**, *ENS de Lyon & Université Lyon 1, France*
- 2017–2018 **Bachelor’s degree in mathematics (dual degree)**, *Université Lyon 1, France*

## Publications

### International journal articles

- POPL’26 Nicolas Chappe. **A Family of Sims with Diverging Interests**. *Proc. ACM Program. Lang.* 10, POPL, Art. 72 (Jan. 2026), 29 pages.
- JFP, 2025 Nicolas Chappe, Paul He, Ludovic Henrio, Eleftherios Ioannidis, Yannick Zakowski and Steve Zdancewic. **Choice trees: Representing and reasoning about nondeterministic, recursive, and impure programs in Rocq**. *Journal of Functional Programming*, Volume 35, 2025, e21, 61 pages.
- POPL’23 Nicolas Chappe, Paul He, Ludovic Henrio, Yannick Zakowski and Steve Zdancewic. **Choice Trees: Representing Nondeterministic, Recursive, and Impure Programs in Coq**. *Proc. ACM Program. Lang.* 7, POPL, Article 61 (January 2023), 31 pages.
- Programming, 2022 Nicolas Chappe, Ludovic Henrio, Amaury Maillé, Matthieu Moy and Hadrien Renaud. **An Optimised Flow for Futures: from Theory to Practice**. *The Art, Science, and Engineering of Programming*, vol. 6, no. 1, 2022, article 3.

### International conference articles

- CPP’25 Nicolas Chappe, Ludovic Henrio, and Yannick Zakowski. **Monadic interpreters for concurrent memory models: Executable semantics of a concurrent subset of LLVM IR**. In *Proceedings of the 14th ACM SIGPLAN International Conference on Certified Programs and Proofs* (Denver, CO, USA) (CPP ’25).

IEEE FIE'23 Eddy Caron and Nicolas Chappe. ***FicWebBoard: A Playful and Collaborative Learning Platform Built for All People and All Programming Languages.*** *2023 IEEE ASEE Frontiers in Education Conference (FIE)*, Oct 2023

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## Program committees

2026 (now) Rocqshop'26 Program Committee (TBA)  
2026 (now) ICE'26 Program Committee  
2026 (now) ECOOP'26 Artifact Evaluation Committee  
2023 POPL'24 Artifact Evaluation Committee

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## Teaching

2025-2026 Teaching assistant for **functional programming practicals** (4th year (M1 level), Polytech Grenoble)  
2024-2025 Teaching assistant for **compiler practicals** (M2 agrégation, ENS de Lyon).  
2023-2024 Teaching assistant for **computer architecture labs** (L2, Université Lyon 1).  
2022-2023 Teaching assistant for **programming labs** (L3, ENS de Lyon). Various  
& 2021-2022 contributions (300+ commits), including 9 new exercise sheets and maintenance of the online platform.  
2022-2023 Teaching assistant for **compiler labs** (M1, ENS de Lyon). Various  
& 2021-2022 contributions (200+ commits) to code and lab subjects.  
2021-2022 Teaching assistant for **system and network programming labs** (then-new M2 agrégation, ENS de Lyon). 6 lab sheets with code skeletons entirely written.

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## Other experience

### Research internships

2021 14-week research internship on compositional code generation for Vellvm in Coq (supervised by Ludovic Henrio and Yannick Zakowski, LIP).  
2020–2021 23-week research internship on the design and evaluation of an algebraic tiling method for stencil loop nests (supervised by Philippe Clauss, ICube).  
2020 20-week research internship on semantics and implementation of *data-flow explicit futures* (supervised by Ludovic Henrio and Matthieu Moy, LIP).  
2019 11-week research internship on the compilation of climate stencils using MLIR (supervised by Tobias Grosser, ETH Zürich, and collaboration with MeteoSwiss).  
2018 7-week research internship on computer-assisted formalization of properties on Markov decision processes (supervised by Samuel Vercaene, DISP).

### Miscellaneous

2018–2019 Initiator and co-head of the Symbolibre project (<https://symbolibre.org>), that involved 29 master students in the design of the hardware and software of a graphing calculator.