

# Émile Trotignon

SOFTWARE ENGINEER



## Contact

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🌐 [emiletrotignon.github.io](https://emiletrotignon.github.io)

🔗 [EmileTrotignon](#)

## Skills

OCaml, git, Unix, SQL, C#, Node.js, C++, Python

## Languages

English, French

I am a passionate dev with wide interests and a focus in functional programming. I like clean code, powerful abstractions, and APIs that force you to do the right thing.

I have made extensive contributions to the OCaml ecosystem, see my [software](https://emiletrotignon.github.io/software) ([emiletrotignon.github.io/software](https://emiletrotignon.github.io/software)) page.

## FORMATION

2022 **Masters in Computer Science Research (MPRI)**

ENS PARIS-SACLAY

2020 **Bachelor in Computer Science**

ENS PARIS-SACLAY

## EXPERIENCE

2024 - present **Software Engineer**

AHREFS

📍 REMOTE

Worked on internal tooling. Made a linter for OCaml code that allows writing custom rules, and has an LSP server.

Grafana charts to observe executable file sizes and other metrics, refactoring of the CI deployment system (buildkite).

Wrote a URL parser/printer to prevent Server-Side Request Forgery attacks. Contributed to a syntax extension for type-safe clickhouse queries. Slack bot integrating with Github and Buildkite.

2022 - 2024 **Software Engineer**

TARIDES

📍 PARIS, FRANCE

Open-source software development: contribution to the tools of the OCaml platform: odoc, ocaml-format, dune. Search bar in odoc: contributions from the CSS to the search algorithms. Coordination and integration of the feature with the dune build system.

## INTERNSHIPS

Spring 2022 **Research internship in computer science**

OCAMLPRO, TEAM FLAMBDA

📍 PARIS, FRANCE

4.5-month internship tutored by Vincent Laviron and Pierre Chambart. Generalization of recursive tail-call optimisation modulo constructors. [Report](https://emiletrotignon.github.io/files/report_m2.pdf) ([emiletrotignon.github.io/files/report\\_m2.pdf](https://emiletrotignon.github.io/files/report_m2.pdf)).

Spring 2021 **Research internship in computer science**

INRIA PARIS, TEAM CAMBIUM

📍 PARIS, FRANCE

Five-month internship tutored by François Pottier. Improvements to the code generated by Menhir, the LR(1) parser generator for OCaml : Typing with GADTs for increased safety, allowing bolder optimisations. The number of allocations was divided by 4, and the speed increased by 10%, across various grammars.

Summer 2020 **Research internship in computational geometry**

LIRIS LABORATORY

📍 LYON, FRANCE

Six-week internship tutored by David Coeurjolly and Vincent Nivoliers. My goal during this internship was to uniformly sample the surface of a potentially imperfect mesh. Implementation in C++ with Polyscope and LIBIGL. [Report \(French\)](https://emiletrotignon.github.io/files/rapport.pdf) ([emiletrotignon.github.io/files/rapport.pdf](https://emiletrotignon.github.io/files/rapport.pdf)).

March 2020 **Fullstack Node.js developer**

JUNIOR ENTERPRISE OF ENS PARIS-SACLAY

📍 REMOTE

Six-week mission for the junior enterprise of ENS Paris-Saclay. Website development of a freelancing platform. The stack was Node.js, Express.js, and MongoDB. Parsed LinkedIn resumes in PDF format to auto-fill the resume form.

Summer 2019 **Intern C# developer**

ETERNIX LTD.

📍 TEL AVIV, ISRAEL

Two-month internship. HLSL shaders, introduction to DirectX and OpenCV, Windows Form development. Greatly rewarding experience abroad.

July 2018 **Front end developer**

ENSSIB

📍 LYON, FRANCE

Graphical integration of the French school for library curators' website: [enssib.fr](https://enssib.fr) ([www.enssib.fr](https://www.enssib.fr))