

PASCAL LASNIER

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github.com/pylasnier

EDUCATION

2024 – present	Dept. of Computer Science & Technology, University of Cambridge (MPhil) Advanced Computer Science MPhil student		
2020 – 2024	St. Catharine's College, Cambridge (Undergraduate) Engineering, Class I BA (Hons) & MEng with Merit Aerospace and Aerothermal Engineering Mechanical Engineering		
2018 – 2020	Richard Huish College, Taunton (A-Levels) Mathematics (A*) Computer Science (A*) Physics (A*) Further Mathematics (A*)		

PROFESSIONAL EXPERIENCE

Siemens Cambridge Software Internship | 2023 | C++, Rust (Wasm), TypeScript

- 12-week summer internship at Cambridge office;
- Worked with dev tools team on integrating source control into VSCode extensions;
 - Implemented through an asynchronous client-server system in Rust using WebSockets.

PROJECT EXPERIENCE

MPhil Computer Science Project (*Ongoing*) | 2024 – 2025 | HOL4

- Individual project for MPhil;
- Building verified compiler for Scheme using CakeML.

4th year Engineering Project | 2023 – 2024 | Python

- Individual project for MEng;
- Achieved First Class;
- Modelling of 1-D thermoacoustics networks.

A-Level Computer Science NEA | 2019 – 2020 | C# | github.com/pylasnier/functional-studio

- Designed an explicitly simply typed pure functional programming language, featuring:
 - functions as first-class citizens and higher-order functions,
 - selection and recursion,
 - a basic type system including integers, floats, bools, and function types;
- Developed an intermediate representation (IR) that implements this language;
- Built a translator, including a tokeniser and a parser that produce the described IR, featuring a rich error system including type checking;
- Packaged the whole interpreter with a simple IDE built using Windows Forms.

SKILLS AND ACTIVITIES

Computing

Linux (NixOS) user, command line-confident
Programming: Rust, C(++), Haskell, C#, Python, TypeScript

Sports

Badminton (University Development Squad and college captain)

Referees available on request