Pascal Lasnier

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EDUCATION

2024 – present — **Dept. of Computer Science & Technology, University of Cambridge** (MPhil)
Advanced Computer Science MPhil student

Modules include Advanced Topics in Programming Languages, Advanced Topics in Computer Architecture, Advanced Topics in Computer Systems

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) and interpreter for this language.

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