

PASCAL LASNIER

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EDUCATION

2020 – present	University of Cambridge, St. Catharine's College Engineering MEng, 3 rd year student Years 1 and 2: 1 st (76% in Year 2) Studying for Aerospace and Aerothermal Engineering
2018 – 2020	Richard Huish College, Taunton (A-Levels) Mathematics (A*) Computer Science (A*) Physics (A*) Further Mathematics (A*)
2013 – 2018	Bishop Fox's School, Taunton (GCSEs) 7 Grade 9s (incl. Mathematics, Physics, Computer Science, and English Language)

PROGRAMMING EXPERIENCE

- 2nd year Engineering Robot Project** | 2021 | Arduino C++ | github.com/pylasnier/idp205
- Software lead of six-person team group project to design an autonomous robot;
 - Task involved navigation within an arena to search and collect small dummies;
 - Developed an understanding of the limitations of microcontrollers and how to work around them, especially memory constraints;
 - Learnt alternatives for debugging a microcontroller system when breakpoints, watches, and other debugging features are not available.
- 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, and bools (arrays are possible as indexing functions, but no polymorphism or type constructors other than 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.

ACTIVITIES AND INTERESTS

Languages	English (native), French (proficient, GCSE Grade 9), Japanese (beginner)
Computing	Linux user, command line-confident Programming: C(++), C#, Python
Music	ABRSM Grade 6 Piano (Merit) ABRSM Grade 5 Music Theory (Merit)
Sports	Badminton, Olympic-style Weightlifting, Aikido (Brown belt)
Extra-curricular	Duke of Edinburgh Award: Bronze (2019), Gold (ongoing) Volunteer at local library (Taunton)

Referees available on request