

## EDUCATION

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

## PROGRAMMING EXPERIENCE

### 2<sup>nd</sup> year Engineering Robot Project | 2021 | Arduino C++ | [github.com/pylasnier/idp205](https://github.com/pylasnier/idp205)

- Lead software component 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 for the limitations of microcontrollers and how to work around them, especially in memory;
- 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](https://github.com/pylasnier/functional-studio)

- Designed a very simple, strongly-typed, pure functional programming language, which included some basic functional programming features:
  - functions as first-class citizens,
  - higher-order functions,
  - selection and recursion,
  - a basic type system including integers, floats, and bools (no arrays or monads);
- 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.