

# Oliver Cruickshank

## Curriculum Vitae

### PERSONAL DETAILS

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Birthdate: December 11th 1999  
Address: 39 St. Bartholomews Court Riverside, Cambridge  
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### EDUCATION

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**Degree: University of York: Computer Science** 2018 - 2021  
A levels: Hills Road Sixth Form Centre 2016-2018 Achieved grades: Maths B, Physics B, Computing B, Extended Project B

**GCSE: St Bede's Inter-Church School** 2011-2016  
Achieved grades: Maths A, Physics A, Computing A, Chemistry A, Biology A, Geography A, English Lang A, English Lit A, Art & Design A, Religious Studies B

### WORK EXPERIENCE

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**Assistant Graphics Engineer: Metail July 2015**  
Helped improve the posing of the 3D human model, as well as shadowed an engineer getting an introduction to industry software engineering

### PROJECTS

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**Fast Embree based Pathtracer 2018**  
Using Intel's Embree framework for high performance ray intersection tests to make a pathtracer. I wrote a simple threadpool to do tile-based rendering, a fast OBJ loader as well as progressive rendering using Win32

**BMO, a language to typeset documents**  
I designed and built a language for typesetting documents for reports and documents. It is similar to groff, producing PDFs as output that are nicely formatted. This CV was written in BMO

**Pathtracer from scratch for my Computer Science coursework 2017**  
I wrote a pathtracer from scratch which used a KD-tree for fast search for possible triangle intersections among common features like depth of field, interpolated normals, and textures

**Metaprogramming Tool for C 2018**  
I wanted some new features for C, without having to use macros so I made a tool to add the 'defer' keyword like Go has. It uses the recursive descent parsing method.

**Interpreted Assembler 2018**  
A simple interpreted assembler to run basic assembly instructions found in my A-Level specification

### SKILLS

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Languages	C, C++, Delphi, Rust, Python
Technologies	OpenGL, Embree, SIMD, CUDA, Git
Sport	Trialled for GB rowing in 2017 as well as competing nationally