# **Tom Read-Cutting**

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#### **EDUCATION**

## 2014 – 2017 University of Cambridge - BA in Computer Science

A broad course, with topics covered by summer 2015 including but not limited to:

**Programming in C and C++** Covered C and C++ on a course dedicated to them. Covered fundamental paradigms of both, pointers, references, structs, macros, good practices and more. C is also used on the Computer Design course to compile basic programs 'to the metal' of a RISC-V processor.

**Semantics of Programming Languages** Covered proving properties of the semantics of programming languages, including determinism, type preservation and rule consistency.

**Concurrent and Distributed Systems** A course on the principle of programming on concurrent systems. From resolving race conditions on multi-core CPUs using locks to achieving ACID properties with data manipulation using tools such as two-phase locking, optimistic concurrency control and timestamp ordering.

**Computer Graphics and Image Processing** Ongoing course. Covers how computer graphics are generated, from 3D rendering using raytracing and perspective projection to 2D image processing (covered later in the course).

## 2011-2013 Cranbrook School

A Levels: Maths (A\*), Further Maths (A\*), Chemistry (A\*), Physics (A\*) and Dutch (A)

Extended Project Qualification: "Is Scientific Research Justifiable?" (A)

## 2009-2011 British School of Brussels

AS Levels: French (B)

**IGCSEs:** Maths (A\*), Double Science (A\*A\*) and German (A\*)

GCSEs: Fine Art (A\*), English Literature (A) and Language (A), ICT (A), Dutch (A), French (A\*)

and Drama (A)

## **EMPLOYMENT**

June 2015 – September 2015 Computer Science Intern at University of Cambridge Computer Lab

- Collaborated with a team on *Pyland*, an educational game that teaches Python.
- Funded by the Broadcom Foundation and Raspberry Pi foundation.
- Rewrote the core engine to allow level creation in Python instead of C++.
- Worked on art, designed levels and challenges, and wrote the core story.
- Still in development at <a href="https://github.com/pyland/pyland">https://github.com/pyland/pyland</a>.

October 2013 – October 2014 Software Developer for Stellarise Limited

- Developed an internal notification display that linked to Web Help Desk and N-Able.

- Deployed internal continuous integration system using Behat and Jenkins.
- Frequently took over customer support when support engineers were unavailable.
- Managed backend GNU/Linux servers, Squid, Apache and MySQL.
- Designed and programmed a web-application for a client. It is used to organise preventative maintenance requests complete with an online booking application.
- Became a full-time employee after a taster week during my gap year with no prior programming experience.

#### **TECHNICAL SKILLS**

- Can develop production level software using PHP, MySQL, JavaScript and HTML5
- Proficient in GNU/Linux and Windows operating systems.
- Familiar with Java, Python, C/C++, SystemVerilog, Prolog, ML, GameMaker-Studio and Yii.

#### **OTHER PROJECTS**

## Hack Cambridge – Co-Founder

- First ever major hackathon for students in Cambridge, January 30<sup>th</sup>-31<sup>st</sup> 2015.
- Website at <a href="http://hackcambridge.com">http://hackcambridge.com</a>.
- Over 400 students taking part at the 24 hour programming and invention event.
- Member of a team of six students.
- Helped plan the event, planning details, ideas, set-up and layout.
- Negotiating sponsorship deals with potential partners ranging from multinationals to local companies.
- Contributing to website development and design using node.js.
- Contact <u>team@hackcambridge.com</u> if you are interested in getting involved!

## Taleom

- Personal game project I am working on in GameMaker Studio.
- Top-Down 2D Zelda-like Action-RPG.
- Working on story, graphics, gameplay and programming.
- Still in active development.
- Started work on porting it to C++ to teach myself basic game engine design.

#### **QUALIFICATIONS AND AWARDS**

Microsoft Student Partner.

Completed Duke of Edinburgh Bronze, Silver and Gold award.

Cranbrook School leavers' award in Maths and Extra-Curricular Activities.

LAMDA Grade 8 Devised Performance (Passed with Distinction) and Acting (Passed with Merits). ABRSM Grade 5 Piano.

## **HOBBIES & PASTIMES**

Sports: Rowing (achieved wooden spoons!) very keen rock climber and runner.

Arts: Enjoy performing, drawing and doodling in my free time.

During my gap year at work in London, I was an enthusiastic member of KCL's Breakdancing Society!