

Sam Robert Whitehead

<https://github.com/Ytrewq13>

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Currently in my fourth year studying Computer Science at the University of Nottingham. Interested in all aspects of software development, with particular interest in system administration and operating system design.

Education

University of Nottingham

2018-09 – current

Degree: MSci Computer Science

First year grade: First
Second year grade: First
Third year grade: First

- Experience implementing various *algorithms and data structures* in C.
- Modules include: *Object Oriented Programming*, Functional Programming (Haskell), *Compiler design* and implementation.

NEW College Pontefract

2016-09 – 2018-07

A Levels

Achieved 3 A Levels, with grades A*AA.

Experience

Teamwork experience

Student Exec Treasurer at NEW College Pontefract

2017-09 – 2018-07

Tracked Student Exec funding for the year, and *allocated budget* to Exec projects.

Software Engineering Group project – designated *gitmaster*

2019-09 – 2020-06

- Organised the *git* repository for the project's source code - Advanced *version control*.
- Managed the ideas of a *diverse group* of people to create a *cohesive software solution* to an *industry challenge*.

Personal Programming Projects

Project description

<https://github.com/Ytrewq13/...>

- Mandelbrot generator in C [mandelbrotc.git](#)
- *Libpng* for storing images, *complex arithmetic* and *multithreading* in C.
- Maze generator and solver in Java and Javascript [mazemaker.git](#)
- *Optimisation* of Javascript rendering code, *A* search* algorithm.
- Major *contributor* to nsxiv (Revival of image viewer *sxiv*). [sxiv.git](#)
- Implemented loading for animated WebP images. Learned *Google's WebP API* and *sxiv's pre-existing codebase* to solve a *real-world problem* with an *open-source software project*.

Programming Languages

C, Bash, Haskell, Python, \LaTeX , R (ggplot2), AWK, SED, VimL, Groff, C++, Perl, SQL, Javascript, Java, Lua, PHP, C#, Agda, Coq, ...

Technologies

Vim, Linux, Git, SSH, Systemd, Clang/LLVM, CMake, GDB, Ansible, Proxmox Virtual Environment, QEMU/KVM, ZFS, ARM architectures, Make, Email (postfix, dovecot, OpenDKIM), ...