

Sam Robert Whitehead

<https://github.com/Ytrewq13>

Tel (手机号): (+86)13612808157

Email (电子邮件): SWhitehead1999@outlook.com

A recent graduate with a Masters degree in Computer Science, living in Shenzhen as a Software Engineer. Open to other opportunities in software engineering, with a particular interest in system administration, tools development, and operating system design.

Education

University of Nottingham

2018-09 -- 2022-07

Degree: **Master of Science** in Computer Science

First class honours (4.0 GPA)

- *Algorithms and data structures* in C, Java, C++, Python, and Haskell.
- Functional Programming and OOP.
- *Compiler design* and implementation.
- Robotics programming.
- *Information Visualization*, Data modeling and Analysis.
- Dissertation: *Operating System development* -- ARM CPU modes and register setup, Graphics driver, System calls, File systems.

Work Experience

Software Engineer - CapitalAdd/铭珈资本 (Shenzhen)

2023-06 -- present

- Prepared automated installation and configuration for Ubuntu servers using Ubuntu autoinstaller and Ansible playbooks, focusing on low-latency tuning and performance optimisation of kernel parameters.
- Wrote tools in C++ for analysing binary data files containing processed market data.
- Benchmarked server performance and capability, comparing with the company's previous server configuration, in preparation for moving from CentOS to Ubuntu.

English Teacher - HouHai English (Shenzhen)

2022-12 -- 2023-05

Preparing and delivering lessons to classes of up to 10 students between 5-11 years old. Wrote feedback on students' performance to evaluate their progression.

Projects

- *Mandelbrot generator in C* -- *Libpng* for storing images, complex arithmetic and *multithreading* in C.
- *Maze generator and solver in Java and Javascript* -- *Optimisation* of Javascript rendering code, A* search algorithm.
- Major *contributor* to *nsxiv* (Revival of image viewer *sxiv*) -- Implemented loading for animated WebP images.

Additional experience

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.

Programming Languages

C, C++, sh/bash, \LaTeX , Groff (ms/man), sed/AWK, R, Python, VimL, Javascript, Haskell, Perl, SQL, Java, Lua, PHP, C#, ...

Technologies

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