Khalid Aleem

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EDUCATION

ÉCOLE NORMALE SUPÉRIEURE DE LYON

2021—2022	Physics (M1) — admitted by Ampere Scholarship

TRINITY COLLEGE, UNIVERSITY OF CAMBRIDGE

2020—2021	Computer Science (MEng, M2 eqv.) — Distinction
	Thesis: A RISC-V based co-processor peripheral to accelerate NN inference
2017—2020	Natural Sciences, Physics (BA) — Class I, 4.0 GPA

QUEENSMEAD SCHOOL, SOUTH RUISLIP — 6+ A-Levels, 10 GCSEs

2015—2017	A2 Mathematics x 3, Chemistry, Physics, History	5 *A** & *A*
	AS Computer Science, EPQ *(OpenGL Physics Simulations)*	2 *A*
2010—2015	GCSEs, *including Mathematics & English*	8 *A** & 2 *A*

EXPERIENCE

RESEARCH ASSISTANT, COMPLIANT & ACCOUNTABLE SYSTEMS GROUP — PROJECT UNDER DR JAT. SINGH — (JULY–AUGUST 2019)

- Significantly improved a IoT networking library consisting of over *20,000* lines of code. Gained debugging experience (*GDB*), fixing numerous race conditions, memory leaks and seg. faults. Developed a good understanding of IPC and TCP networking with linux sockets.
- **C** — *https://github.com/Skydive/ComFlux-Middleware/*

FULL STACK DEVELOPER, TRINITY COLLEGE SCIENCE SOCIETY — (2019+)

- Contracted to create an editable website from scratch, implementing the *WAA→WLS protocol* & *RSA signature verification* for university account authentication. Built with a custom *async* build tool, written in *Rust*, and making use of *docker* for testing and deployment.
- **RUST/DOCKER/JS/PHP/SQL** — *https://github.com/Skydive/tcss/*

TREASURER, CAMBRIDGE UNIVERSITY PHYSICS SOCIETY — (2019—2020)

- Responsible for hosting weekly talks with distinguished speakers from the physics community and managing over *10 000 GBP* of society funding from various sponsors. Created the society website: *http://camphysoc.co.uk/*

PROGRAMMING SKILLSET

- **Proficient:** C++, C, Python (Numpy/Numba), JS, PHP, SQL
- **Intermediate:** Rust, Java, Bash, GNU Make, Bluespec Verilog, AWS, Docker

OTHER

- **Languages:** English (native), French (working proficiency), German (beginner)
- **Hobbies:** gnu+linux, badminton, fencing, jogging