

Experience

UNDERGRAD TEACHING ASSISTANT Sep 2025 – Present
Delivers support sessions and answers forum questions for a year-one computer science module at UCL.

Extracurricular

UCL COMPETITIVE PROGRAMMING SOCIETY Nov 2024 – Present
Founding & committee member and speaker. We host topical lectures, contests, and workshops to train teams.

JESS AI CLUB Jan 2022 – May 2022
Founder and host of the first purely student-ran club. Its popularity allowed me to introduce NLP theory to 20+ peers.

ACADEMIC RESEARCH May 2023 – Oct 2023
Co-authored a [16-page report](#) on water usage in the UAE. This was an initiative under the [Roots & Shoots](#) movement; the results were presented at the [Expo Awards Ceremony](#).

Competitions

COMPETITIVE PROGRAMMING Jan 2024 – Present
ICPC, currently training for the European Championships. Codeforces (UK 28th), Leetcode (7.61%).

MATHEMATICAL MODELING Nov 2022; Feb 2023
Meritorious (top 23%) in [HiMCM](#) and top 25% in [M3C](#). Led and coached team; was school's trailblazer in math modeling.

WHARTON GLOBAL INVESTMENT COMPETITION Sep–Dec 2022
Team leader. Rank #75. Best performance in school history. Inspired seven teams to register the following year.

REGIONAL MATH COMPETITION Feb 2023
[DMSL](#) senior bracket [winning team](#) and MVP. Defeated long-reigning champion, Dubai College.

Projects

[gws2](#) ([akioweh.com](#)) Oct 2024 – Present
“General WebServer”. A prototype for personal fileshares and web technologies incl. HTTP/3, reverse proxying, CD

[oiqBot](#) Oct 2021 – Present
Realtime network app with a cooperative concurrency model and modular, hot-loadable plugins. ~67 files; 3.8k loc

LOOPED SOFTWARE July 2025 – Present
Full-stack P2P e-commerce system platform in development.

[sheepcalc](#) Jul 2025 – Jul 2025
Pure λ -calculus interpreter in Haskell using ADS and Parsec.

HOMELAB May 2024 – Sep 2024
Incl. Ethernet patching, router modding. Repurposed devices into proxy jump servers, NAS, private DNS resolver.

AEQ May 2024 – Mar 2025
“Advanced EQ”. Python package to read, analyze, adjust, and generate DSP (convolution EQ) filters at high precision.

Education

UCL 2024 – 2027
BSc Computer Science Y1: 83.38%

JESS Dubai 2020 – 2024
GCSEs (11), IB Diploma

Technical Skills

ALGORITHMS & DATA-STRUCTURES
Competition code; Technical analysis

APPLICATION PROGRAMMING
Concurrency; RDBMS; REST API;
ASGI; Template programming; Scalable realtime applications

LANGUAGES
Python (5yr): FastAPI, SciPy, aiohttp
C++ (2yr): FreeRTOS, Boost
Java (3yr): Maven, EE, JSP & JSTL
Haskell (1yr); Lua (1yr); JavaScript (2yr)
Object-oriented, Declarative, Functional

NETWORKING
WAN Architecture, Anycast; DNS,
email security: DNSSEC, DMARC;
NAT, Subnets; LAN administration

DEVOPS & SYSADMIN
Cloud infrastructure / VPS, Terraform;
Enterprise & SE Linux; CI/CD

LOWLEVEL & EEE
ESP-IDF; UART, I2C; Analogue
circuit design, Digital design

DATA SCIENCE
Computational modeling: Time-series,
Regression, Monte Carlo, Dynamics;
Visualization; Validation & Forecasting

DEVELOPMENT TOOLS
Git, CMake; LSP, DAP; MSYS2, Unix;
NeoVim, JB IDEs, Terminal, SSH

ARTIFICIAL INTELLIGENCE
Understanding of Self-attention,
Transformers, Pre-training, Optimizers

TYPESETTING
 \LaTeX , $\text{\textit{TikZ}}$, $\text{\textit{BibTeX}}$

Misc

LIVE AUDIO & VIDEO
Event audio-visual control & setup;
Live broadcasting; Live audio mixing

NATURAL LANGUAGES English, Mandarin