

## 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  $\lambda$ -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, 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 <sup>(5yr)</sup>: FastAPI, SciPy, aiohttp  
C++ <sup>(2yr)</sup>: FreeRTOS, Boost  
Java <sup>(3yr)</sup>: Maven, EE, JSP & JSTL  
Haskell <sup>(1yr)</sup>; Lua <sup>(1yr)</sup>; JavaScript <sup>(2yr)</sup>  
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  
 $\text{\LaTeX}$ ,  $\text{\textit{TikZ}}$ ,  $\text{\textit{BibTeX}}$

## Misc

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

NATURAL LANGUAGES English,  
Mandarin