11 Hatfields, Loughton, Essex 07714309116 cleggacus@gmail.com https://liamclegg.co.uk/ / https://github.com/cleggacus

# Liam Clegg

## Profile

Enthusiastic and dedicated Computer Science student with a strong foundation in various programming languages. Keen interest in technical coding fields, including game engine development and challenging problems with full stack web app development.

## Education

**Swansea University, Swansea (Currently)** — Computer Science BSc September 2021 - May 2024

**Davenant Sixth Form, Loughton Essex** — ALevels September 2019 - July 2021 Computer Science (A), Maths (B), Physics (C), EPQ(B)

### Davenant Foundation School, Loughton Essex — GCSE

September 2014 - July 2019

Maths, English Lang, English Lit, Physics, Biology, Chemistry, Computer Science, History and art.

## Freelancing Experience

Worked on an innovative AI project using Next.js, Prisma, TypeScript, Docker, Redis, and WebSockets. Collaborated efficiently via Slack.

## **Programming Projects**

- Created a TUI UI library in rust. Including a renderer, state and event management and easy to use library features such as builder patterns and composition.
- Dissertation project: Real-time black hole renderer using Rust and WebGPU. I
  had to teach myself concepts of general relativity which shows I can apply non
  computer science related knowledge to computer science.
- A-level project: Created a unique blockchain web app using React, WebRTC, and a self-coded Kademlia-based algorithm in TypeScript.
- Developed a game in my software engineering module. I demonstrated both leadership and teamwork by setting out the core framework of the game engine to make it easier for the other developers.
- Developed image classifiers using tensorflow and Sklearn along with optimization techniques such as grid search and simulated annealing.

#### Technical Skills

- Proficient in Rust, Python, JavaScript, TypesScript, Java, C++ (14), C (99).
- WebDev: Experienced in Next.js / React, Express JS, SolidJS, Prisma, Docker, Redis, WebSockets, Rust, WebGPU, Express, Actix Web (rust library).
- Al: Experienced in Matplotlib, SciPy, TensorFlow and Sklearn
- Graphics: OpenGL, WebGPU, GLSL and WGSL

## Additional

When I'm not working I have many hobbies including drawing, coding and playing guitar.