



Asad Iqbal

Physics Student
Builder & Problem-Solver

PORTFOLIO & PROJECTS

asadiqbal.site

CONTACT

Email asad.aiqbal2005@gmail.com

LinkedIn linkedin.com/in/asad-i

GitHub github.com/asad-iq

SKILLS

Programming

Python

JavaScript

HTML/CSS

Java

Tools

Git

GitHub

Android SDK

Physics & Science

Data Analysis

Lab Work

Sci Python

Other

Public Speaking

TEFL Cert.

INTERESTS

- Piano (self-taught)
- Photography
- Travel
- Reading
- Arsenal FC

Physics student at Leeds who builds things on the side — AI game opponents, physics simulators, cross-platform apps, and hands-on engineering projects in the driveway. Equally comfortable in a lab or with a spanner in hand. Looking for a year in industry placement in 2027 where I can contribute from day one.

EDUCATION

BSc Physics

2025 – 2028

University of Leeds

- On track for 2:1 (Upper Second-Class); core modules include Mechanics, Electromagnetism, Quantum Physics, and Mathematical Methods.
- Python for data analysis and scientific simulation; hands-on experimental lab work with uncertainty analysis and formal scientific reporting.

EXPERIENCE

Research Intern — Chemical Engineering

Jun 2023

University of Bradford · Supervised by Prof. Raj Patel (Head of Chemical Engineering)

- Competitively selected; applied thermodynamics and materials science to design a sustainable solar heater from concept to working prototype — final design 15% more efficient than the benchmark.
- Led team through design, testing, and iterative optimisation; received commendation at the formal academic review.

Presentation of the Day Award

Jan 2024

University of Leeds Undergraduate Symposium

- Voted best presentation by an expert panel; delivered technical content and fielded expert-level live questions from researchers and faculty.

English Teaching Placement (TEFL)

May – Aug 2026

Gotoco · Shaoyang & Pingjiang, China

- Completed 120-hour TEFL certification; taught English across two placements to students of varied ages and proficiency levels, adapting approach in real-time.
- Lived and operated independently in a non-English-speaking environment for 3 months; built genuine cross-cultural communication skills and resilience.

PROJECT TYPES

E Engineering

S Software

ENGINEERING SKILLS

- Thermodynamic modelling
- Heat transfer analysis
- Materials selection
- Mechanical fault diagnosis
- Iterative prototyping
- Vehicle maintenance

DIGITAL SKILLS

- Algorithm design (minimax)
- Physics simulation
- Cross-platform development
- Sensor API integration
- UI/UX from scratch

Sustainable Solar Heater

Jun 2023

ENGINEERING

University of Bradford Research Placement · Chemical Engineering

- Designed and built a working solar water heater end-to-end — thermodynamic modelling, heat transfer calculations, and materials selection for the absorber, insulation, and fluid circuit.
- Led team through iterative build-test-optimize cycles; final design achieved 15% efficiency gain over the benchmark and was commended at the academic review.

Automotive Maintenance & Mechanical Engineering

Ongoing

ENGINEERING

Personal project · Various vehicles

- Independently diagnose and resolve mechanical faults — engine servicing, braking systems, electrical fault-finding — applying thermodynamics and materials knowledge from the Physics BSc directly.
- Same iterative mindset as lab work: identify the fault, form a hypothesis, test and verify.

Portfolio Website & Browser Games

2025 – Present

SOFTWARE

asadiqbal.site · Vanilla HTML / CSS / JavaScript — no frameworks

- Eight fully playable browser games — Chess and Connect 4 AIs use minimax with alpha-beta pruning; Battleships uses a checkerboard coverage phase then targeted adjacent-cell hunt after a hit.
- Interactive Newton's Cradle simulator with live physics readout (KE, momentum, v-max); particle-physics hero animation; engineering blog.

PhysicsLab, .Workspace & Android Apps

2025 – 2026

SOFTWARE

JavaScript / Java · macOS · Windows · Android · Released via GitHub

- PhysicsLab: smartphone sensors (accelerometer, gyroscope, barometer) repurposed as a portable physics lab bench — 5 first-year experiments, no external hardware needed.
- .Workspace ships a full CAS engine and live sensor telemetry on Mac, Windows, and Android; .Card Table delivers real-time multiplayer card games with room codes.