# Sinan Iqbal

07944111426 | sinan.iqbal04@gmail.com | linkedin.com/in/sinan-iqbal | github.com/dib-len

## EDUCATION

**Royal Holloway, University of London**                                   Sep 2022 - Jun 2026
**BSc Computer Science (with a Year In Industry)**
- Predicted First Class - Achieved First Class in both 1st & 2nd years
- Elected **First Year Representative** and later **Vice President** of the Computing Society

## EXPERIENCE

**C++ Software Developer Placement**                                        Sep 2024 – Sep 2025
**Focusrite**                                                              *King's Cross, London*
- Maintained and extended **internal tools and libraries** across **multiple tech stacks**, supporting **cross-functional engineering teams** as part of the Software Tooling Team
- Expanded **internal C++20 libraries** powering 3+ generations of Scarlett hardware; adding support for older devices and features for upcoming products
- Wrote and extended **test coverage using Catch2**, even uncovering and fixing a faulty mock setup
- Supported **CI/CD migration from CircleCI to GitHub Actions** for internal tooling pipelines
- Helped design and plan new internal engineering tool, contributing to the **story map and system design**. **Proposed modern technologies** (Tauri + Svelte), breaking down features into issues, and began implementation at Sprint 0
- Facilitated **Agile ceremonies** including stand-ups and retrospectives
- Participated in **company-wide hackathons**, collaborating with different teams and eventually **winning with a 2D audio ray tracer prototype** in Python, later rebuilt in C++

**Point of Care Testing Data Support Work Experience**                              Jul 2021
**Guy's and St Thomas' NHS Foundation Trust**                                       *London*
- Shadowed the POCT team to understand how diagnostic devices integrate with hospital data systems
- Assisted with formatting, cross-checking and exporting COVID-19 test result data using **Excel** and internal systems

## PROJECTS

**AI Radio Station - *Winner of HackSussex 2023* | *Python, Java, BeautifulSoup, OpenAI, Git***      Feb 2023
- Collaborated with a team for 24 hours and won the University of Sussex's 2023 hackathon
- Created a web scraper for BBC news articles using BeautifulSoup, and fed scraped data into the OpenAI API to generate a radio show script read out by the ElevenLabs API

**Gourmet Restaurant Website** | *HTML/CSS, JavaScript, PostgreSQL, Python, Git*      Jan 2024 – Mar 2024
- Led a team of 9 as Scrum Master, splitting tasks amongst ourselves using tools such as Trello and GitLab
- Functioned as a full-stack developer; engineered the backend using Flask and PostgreSQL, and contributed to frontend enhancements
- Bi-weekly scrum meetings with the client to refine and tailor our prototype based on their requirements

**2D Audio Ray Tracer (Final Year Project)** | *C++, Python*                        Sep 2025 – Present
- Developing a high-performance C++ engine to simulate 2D sound propagation using ray tracing principles
- Implemented custom vector, ray, and wall data structures to calculate first-hit intersections between rays and 2D line segments by solving parametric line equations
- Implemented energy attenuation and material-based reflection logic to model realistic audio decay based on distance and surface absorption

## COMPETITIONS & AWARDS

Helped run and organise Royal Holloway's annual hackathons, Royal Hackaway v6 & v7
**Hack AI 2023**: Time-series forecasted the load factor of airlines in 2022 using a variety of data from 2017-2021
**UKMT Senior Maths Challenge**: Achieved Gold and Kangaroo

## TECHNICAL SKILLS AND INTERESTS

**Languages**: Python, C++, Rust, Java, SQL JavaScript, TypeScript, Prolog
**Technologies and Workflows**: Git, Excel, AI skills, GitHub CoPilot, Unit Testing, Test-driven development, Behaviour-Driven Development, Jira, Confluence, Miro, CI/CD, Linux
**Interests**: Lacrosse, guitar, history, strategy games (part of RHUL's main esports team), and bouldering