

RAAGHAV LAKHANPAL

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Technical Skills

Front End - SwiftUI, HTML, CSS, Javascript, React

Back End - Java, Swift, Python, C++, MySQL, PHP

Developer Tools - Git, Agile Methodology, npm, Xcode, CreateML, VSC

Experience & Projects

Founder & Sole Developer | Guess The Link

Led the end-to-end design, development, deployment, and continuous improvement of the app, managing all aspects from concept to launch.

- **iOS Development with SwiftUI:** Designed and developed a native iOS application using SwiftUI in Xcode, achieving a 4.3-star rating on the App Store with over 300+ downloads.
- **Integrated Third-Party APIs:** Implemented Google Firebase for real-time database management, reducing data retrieval time by 30%; integrated RevenueCat APIs to manage premium transactions monthly, and Google AdMob to drive an increase in ad revenue.
- **Agile Development and Deployment:** Led the project from concept to deployment using Agile methodologies, delivering monthly updates that improved user retention by 25% over six months.

Designer & Sole Developer | Portfolio Website

Utilised modern web development technologies and design principles to build an engaging and professional online presence to showcase my projects, skills, and achievements.

- **Front-End Development:** Built a responsive, user-friendly website using HTML, CSS, and JavaScript frameworks ensuring cross-browser & device compatibility with a seamless UX.
- **UI/UX Design:** Designed the site layout and user interface with a focus on clean aesthetics and intuitive navigation, leveraging Figma to create wireframes and prototypes.
- **SEO and Performance Optimisation:** Implemented SEO best practices and performance optimisation techniques, resulting in a page load time of under 2 seconds/

AI Developer & Researcher | PowerPlay

Developed an iOS application as part of my university dissertation that utilises AI and computer vision to track cricket ball trajectories in real-time, providing insights for players and coaches.

- **Custom Dataset Creation & Model Training:** Augmented an initial dataset from Roboflow, expanding it from 598 to 1,530 images, and trained a custom object detection model using CreateML over 13,000 iterations, achieving a loss of 0.719 and a precision of 86%.
- **Advanced AI and Filtering Techniques:** Implemented a customised Kalman filter to enhance real-world detection accuracy by filtering out background noise, significantly improving the reliability of ball tracking in varied environments.
- **SwiftUI Development & Insight Generation:** Developed a modern and user-friendly iOS application using SwiftUI, ensuring usability for all technical abilities. Designed algorithms to analyse tracked ball metrics, generating performance insights for cricket players and coaches.

Education

BSc Computer Science (Artificial Intelligence) | 2021 - 2024

University Of Keele - First Class Honours

- **Data Structures and Algorithms:** Mastered key data structures and algorithms, focusing on efficient problem-solving and code optimisation.
- **Software Engineering and Project Management:** Learned software development methodologies and project management principles, emphasising best practices in design, development, and team collaboration.

A-Levels | 2019 - 2021

The Holt School - A, A, B, C

Subjects:

- EPQ (Can Neural Implants Be Used To Connect Humans & AI), Biology, Chemistry, Economics

Work History

App Developer | Agile Link Limited

Gaining hands-on experience in designing and developing a cross-platform healthcare application as part of a collaborative team.

- **.NET MAUI:** Working with .NET MAUI to understand and contribute to the creation of native applications for iOS and other platforms.
- **AWS:** Exploring the use of AWS services for building scalable and secure backend solutions tailored to healthcare requirements.
- **UX/UI:** Engaging in discussions about front-end UX design to ensure the app provides users an intuitive and interactive experience.

A-Level Biology Tutor | MyTutor

- **Elevated Student Performance:** Delivered personalised 1:1 tutoring that resulted in an average grade improvement of one full letter grade for students, leveraging strong communication
- **Optimised Learning Plans:** Designed and executed customised lesson plans and schedules, ensuring 100% coverage of the curriculum and maximising student comprehension and retention.
- **Streamlined Multi-Student Management:** Efficiently managed the academic progress of multiple students simultaneously, improving overall session productivity by 25%

Assistant Team Leader | Learn By design

- **Led and Mentored:** Co-led 3 groups of 16 teenagers, ensuring their safety and well-being while fostering a supportive environment, resulting in a 100% positive feedback rate from participants.
- **Enhanced Team Collaboration:** Worked alongside a diverse team of 10 staff members, optimising group communication and teamwork, which led to a 20% increase in task efficiency.
- **Drove Participant Engagement:** Managed and supported the physical and mental well-being of 48 young people, significantly reducing instances of homesickness and increasing overall group morale.