#### Somaan Mirza

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#### **EDUCATION**

# Queen Mary University of London | MSc Advanced Computer Science

25/26

Software and Data Engineering

Key modules: Functional Programming, Machine Learning, Security & Authentication, Data Analytics

### University of East Anglia | Business Information Systems – 2:1

22/25

- Key modules: Systems Engineering, Data Science, Databases, Python for Applications, Cyber Security
- Dissertation: "SecurityQuest: Gamified Cybersecurity Education Platform" First Class Honours

## The Priory School, Hitchin

13/20

- A-Levels: History (B), English Literature (C), BTEC Level 3 Information Technology (D\*)
- GCSE: English Literature/Language (6|5), Mathematics (6), Science (7|6), Computer Science (6), History (6)

### **TECHNICAL PROJECTS**

## SecurityQuest – Full-Stack Cybersecurity Education Platform

- Developed gamified educational platform addressing cybersecurity awareness through interactive learning
- Implemented AI-powered personalised feedback system using locally-hosted large language model
- Built secure authentication with bcrypt hashing, CAPTCA verification, and automated email integration
- Created comprehensive user analytics and achievement tracking system
- User testing demonstrated 52.2% improvement in cybersecurity confidence and measurable behavioural change
- Achieved 100% test coverage across 326 automated test cases using Jest and React Testing Library

### Squash Hawkeye – Computer Vision Line-Calling System

- Engineered ball tracking system using synchronised audio-visual detection for sports officiating
- Developed machine learning algorithms for object detection and spatial analysis with 82% accuracy
- Implemented adaptive audio processing and image enhancement pipeline for improved detection
- Build comprehensive decision logic implementing official sports rules with pixel-perfect spatial analysis
- Created multi-format output system generating visual annotations, audio feedback, and structured logging

## **TECHNICAL SKILLS**

Programming: JavaScript, Python, SQL, HTML/CSS, Java

**Technologies:** React, Node.js, Express.js, PostgreSQL, MongoDB, OpenCV, Jest **Tools:** Git/GitHub, VS Code, RESTful APIs, Database Design, Unit/Integration Testing

#### **WORK EXPERIENCE**

# Hitchin Lavender Farm | Assistant Manager

20 - Present

- Managing and scheduling a diverse team of 50 employees, fostering an inclusive environment
- Applied analytical thinking to workforce scheduling, reducing overtime costs by 10% through improved resource allocation
- Developed problem-solving skills managing complex operational challenges in fast-paced environment
- Collaborated with cross-functional teams to streamline operations and enhance service delivery standards

### **LEADERSHIP & ACTIVITIES**

#### Squash Club President | University of East Anglia

- Organised training sessions, tournaments, and inter-university competitions
- Managed team dynamics and represented club interests to university committee