

# Muhammad Umar

Programmer & QA Tester

## Contact

**Phone:** +447400525348

**Email:**  
muhammadumer091@gmail.com

## Portfolio:

<https://mumar1999.github.io/Portfolio>  
Showcasing my projects

## Education

**BSC  
Computer Games Technologies**  
University of Portsmouth  
England, United Kingdom

**BTEC  
Information Technology and  
Computing**  
Croydon College  
England, United Kingdom

**GCSE**  
Hurlingham and Chelsea School  
England, United Kingdom

## Skills

**Programming Languages:** C++,  
C#, HTML, CSS, JavaScript,  
Bootstrap

**Game Development:** VR  
programming, Gameplay  
programming

**Testing & QA:** Smoke  
testing, Sanity testing,  
Functional testing

**Soft Skills:** Problem-Solving,  
Communication, Attention To  
Detail

## About Me

I am a **gameplay programmer** with experience in **gameplay programming, VR development, front-end development, and quality assurance testing**. Passionate about crafting **immersive and interactive experiences**, I thrive on solving complex problems and optimizing gameplay mechanics.

Proficient in **C#, C++, HTML, CSS, and JavaScript**, I am currently expanding my skill set by learning **React and Node.js**. My goal is to contribute to the **games industry**, gaining hands-on experience while continuously enhancing my technical expertise.

A **curious and driven** developer, I continuously seek new technologies and refine my craft, aiming to create highly immersive and engaging gaming experiences.

## Experience

**Technical Support / Firmware Tester | Drunk Deer, Volunteer**  
**AUGUST 2023 – PRESENT**

- Conduct comprehensive firmware testing using **smoke testing** to assess stability, **sanity testing** to verify critical functions, and **functional testing** to ensure compliance with firmware specifications.
- Act as a key liaison between customers and the development team, Diagnosed and reported firmware issues, contributing to a 70% improvement in system stability and user satisfaction.
- Collaborate closely with developers to troubleshoot and refine firmware, contributing to **continuous product improvement** through iterative testing and feedback loops.
- Help streamline the **customer experience** by addressing technical concerns efficiently, ensuring users have a seamless interaction with the product.

## Projects

**Gameplay Programmer | Lumbar Puncture, FundamentalVR**

- Working with **fundamental SDK** to create a playable level.
- Incorporating **haptic feedback** using 3ds systems haptic pens.
- Using C# and prefabs to configure haptic feedback to mimic actual surgery procedure.
- Taking and implementing client feedback to add new feature to the level such as movable objects (e.g. scalpels, needles, anaesthetic cotton)
- Provided feedback on SDK usability, improving

documentation clarity.

### AI Programmer | AI Enemy NPC, Unreal Engine API

- Developed an **AI-driven** enemy NPC using **Unreal Engine's** built-in AI components, implementing **behaviour trees** for **intelligent movement** and **combat mechanics**.
- Combining vision and touch components from the unreal engine API.
- Programming the NPC to follow the player upon sight.
- Programming enemy attack mechanics and damage system.
- Programming player attack mechanics and damage system.
- Animating the enemy NPC to give it more life.
- Designed and implemented a UI system to display **dynamic health bars** for both enemies and the player.

### Certifications/Online Course

- Completed 'The Complete Web Development Bootcamp' by Dr. Angela Yu, gaining hands-on experience in full-stack web development, including JavaScript, React, and Node.js.