

# Aryan Rallan

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## ABOUT ME

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I am a passionate Computer Games Programming student who has finished my second year at Kingston University, actively seeking an entry-level position to launch my career in the video game industry. With a strong foundation with C-based languages and hands-on experience with game engines like Unreal Engine and Unity, as well as other platforms (see Academic Projects), I am eager to build my skills, deepen my experience, and grow both as a developer and a professional.

## SKILLS

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- Experienced with C-based programming languages including **C++** and **C#**
- Background in Game-engines including **Unreal Engine** and **Unity**, and C++ based engines
- **Logical** and creative **problem solver** with the ability to determine the best/most efficient outcomes, when debugging and optimising code
- Good IT skills, including the use of the Microsoft Office applications
- A **confident communicator**, able to convey ideas clearly exemplified through presenting projects at university
- **Teamwork** and **leadership** skills, adapting my approach according to the situation when working as a bartender and group lead programmer for a project at university
- **Learn new tasks quickly**, such as techniques when coding with C++, scripting with C#, creating shaders in OpenGL, as well as using different game engines for my academic coursework
- Strong **organisational** and **prioritisation** skills, working accurately under pressure, **managing my time effectively** to meet continuous project deadlines at university

## EDUCATION

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### Kingston University London

*BSc (Hons) Computer Games Programming*

Kingston upon Thames, U.K

*Sept. 2023 – Current*

- Games Programming – 78%
- Requirements Analysis and Design for Games Programming – 72%
- Games Science – 58%
- 3D Graphics Programming and Artificial Intelligence
- Professional Game Development Environments
- Introductory Digital Media and CGI

### Lampton School

*High School/Sixth Form Qualifications*

Hounslow, U.K

*2016, 2023*

- A-Levels: Economics C, Computer Science - C, Psychology - C
- GCSES: 10 GCSES (5-8) including Mathematics - 7, English - 6 and Computer Science - 8

## EXPERIENCE

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### Bartender

*Polar Events*


Sept. 2023 – Ongoing

*Twickenham, UK*

- Worked collaboratively with my team to ensure customers received their orders in a timely and accurate manner
- Dealt with customer concerns promptly and efficiently to ensure customer satisfaction
- Succinctly communicated with team members to offer or receive assistance when necessary

## ACADEMIC PROJECTS

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These can be found on my portfolio website:  <https://arii04.github.io/>

### Unreal Engine Game - Forsaken Wilds: Ascend

**Jan. 2024**

*Requirements Analysis and Design for Games*

- Collaborated with a team to conceptualise and design a game from graphical style, gameplay and story
- Developed a game design document which outlined how the game mechanics worked in addition to an implementation plan
- Implemented multiple enemy and projectile variants using an object-oriented approach
- Engineered player shaders/ dynamic material to show feedback of player actions in addition to a responsive player interface
- Designed and implemented a dynamic camera system that locks onto a specific area when the player enters and resumes following the player once they exit
- Leveraged the Niagara VFX system to simulate fireflies and integrated it as a gameplay mechanic
- Created and presented a fully-featured prototype of the first level

### Unity Game - Sonic Clone

**Jan. 2025**

*Professional Game Development Environments*

- Created player movement driven by realistic momentum and physics
- Produced sound effect variance to enhance player experience
- Designed and developed a level to support the game mechanics

### C++ Game - Brittney's Bad Day

**Dec. 2023**

*Games Programming*

- Implemented enemies and their projectiles through the use of pointers and managed them through dynamic arrays
- Created a variety of assets, including sprites from sprite sheets and sound effects
- Implemented procedural difficulty scaling after each wave, allowing for seemingly infinite progression of waves
- Constructed an upgrade system for the player to create a sense of progression for the player

### Unreal Engine Game - Nova Passage

**Apr. 2025**

*Professional Game Development Environments*

- Implemented a robust parkour system including dashing, wall running and wall jumping
- Collaborated with a team to meet deadlines to a high standard
- Created modular systems for the player to support gameplay
- Designed a responsive HUD for the player
- Developed a Niagara VFX system to simulate meteors

### Pathfinding Algorithm

**Nov. 2024**

*3D Graphics Programming and Artificial Intelligence*

- Used the A\* pathfinding Algorithm to allow the player to traverse nodes based on where on the screen the player clicked
- Developed enemy AI to control chess pieces, enabling them to move according to their designated piece movement rules while strategising to escape and capture the player's pieces

## INTERESTS

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Passionate about acting - achieved an 8 in GCSE Drama and enrolled in an acting academy, participating and performing in stage productions.

Indulge in gaming - experienced and enjoyed all genres of games, particularly games that require strategy, such as fast-paced FPS titles and games that grant me a sense of agency.

Fascinated by computer hardware, created a light sensor using a Raspberry Pi that moves a dial based on the amount of light sensed, and successfully built my computer.

Gym fanatic- consistently weight training, using a home pull-up bar daily, and casually enjoys playing badminton, basketball and tennis.

## REFERENCES

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References available upon request.