

Sean Sanii

Game Programmer | C++ | Unreal Engine 5 | Unity | Gameplay Systems

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Junior Game Programmer with a strong foundation in C++, Unreal Engine 5, Unity, and C#, supported by an MSc in Computer Games. Experienced in building gameplay systems, AI behaviour, player abilities, and interactive prototypes from concept to playable implementation. Confident debugging technical issues, applying object oriented design, and developing polished game systems through personal and academic projects.

Technical Skills

- Strong skills in C++, C# and Java, with experience building gameplay systems and interactive prototypes.
- Experienced with Unreal Engine 5 and Unity, including gameplay programming, Blueprints, and player mechanics.
- Familiar with AI behaviour, blackboard logic, multiplayer concepts, map generation, and turn-based systems.
- Confident debugging gameplay issues and implementing mechanics across playable prototypes.
- Additional experience with GitHub, HTML, CSS, JavaScript, SQL, Linux, TCP/UDP networking, and game hosting.

Education

Queen Mary University

MSc, Computer Games - *Merit*

Thesis: Chinese Checkers Implementation in TAG Framework

London, UK

Sept 2022 - Oct 2023

[LaTeX](#)

University of Kent

BSc, Computer Science - First Class Honours

Canterbury, UK

Sept 2019 - July 2022

Technical Projects

Unreal Engine 5

See portfolio / website

C++, Blueprints

- Built a MOBA-style combat prototype in Unreal Engine 5 using C++ and Blueprints.
- Implemented attributes, abilities, and a cursor targeted Flash teleport using Gameplay Ability System
- Created UE5 demos covering multiplayer, AI behaviour, blackboard logic, and genetic algorithm map generation

Advanced Game Development Mini Game

[GitHub](#)

C++, GitHub, Visual Studio

- Built a C++ mini game as a pair-programming project for QM's Advanced Game Development module.
- Implemented gameplay systems using design patterns including Command and Observer.
- Added multiple input methods, achievement logic, audio playback, and interactive mechanics.

Chinese Checkers AI Test Environment

[GitHub](#)

Java, LaTeX

- Implemented Chinese Checkers in TAG, including a 121-node board, GUI, and JUnit tests.
- Built BFS-based move generation for chained jumps while enforcing straight-line and destination rules.
- Designed a Chinese Checkers heuristic that beat WinOnly 63%-37% in MCTS testing.

Personal Website

[Link](#)

JavaScript, HTML, CSS

- Designed and implemented a responsive layout to ensure usability across desktop and mobile devices
- Structured and styled the site with HTML and CSS, and integrated JavaScript to interact with GitHub's API.

Experience

Fuse Energy **Operations Analyst**

Canary Wharf, London, UK
May 2026 - Present

- Promoted from Operations Intern to Operations Analyst within 3 months based on performance and ownership of operational data initiatives.
- Leading operational reporting and data analysis across billing, switching, and meter related workflows.
- Developing dashboards and SQL reporting models to improve SLA visibility and operational decision making.
- Investigating data flow failures and collaborating across teams to resolve operational bottlenecks.

Operations Intern

Feb 2026 - May 2026

- Resolved D0170 data flow failures impacting meter updates by analysing datasets, reviewing Python code, and writing SQL queries; identified 48 failed flows enabling successful downstream processing.
- Automated Intercom data pipeline (Python → AWS S3), reducing manual processing and improving data access.
- Built SQL models and Metabase tables to enable scalable reporting across operational datasets.
- Created dashboards tracking SLA compliance, ticket progression, and connectivity metrics.

Forward Trust Charity **IT Specialist Volunteer**

Kennington, London, UK
Aug 2025 - Oct 2025

- Developed PowerShell script to extract and structure Microsoft Exchange data into CSV for analysis.
- Created a distribution list similarity matrix to identify redundant Microsoft Exchange groups.
- Analysed datasets in Excel using pivot tables and functions to produce structured reports.
- Provided first-line support across O365, Windows 10, and Microsoft Server environments.

CRG Homecare **Arbitration Officer**

Hammersmith, London, UK
Aug 2017- Mar 2019

- Conducted daily checks on local council payments using the Provider Manager application.
- Processed ~6,000 payment records monthly with 100% accuracy.
- Assisted in resolving issues related to phones, login procedures, and client-related concerns.

Interests

- Weightlifting, gaming, performed in London children's ballet and competed nationally in gymnastics.
- Built custom gaming PCs for others by selecting compatible CPUs, GPUs, RAM, storage, and other hardware components.