



Gaming Engineer

JOB OUTLOOK

The need for gaming engineers is projected to grow 22% by 2030, much faster than the average growth for all occupations.

SALARY RANGE

\$65,210–\$170,100

WHO ARE THEY?

Gaming engineers work long hours and have a mix of soft and hard skills that allow them to collaborate with team members from potentially all around the world to bring the best gaming experience to players. They have good communication skills as they explain problems that arise and give clear instructions. They are creative and thoughtful as they consider the player and the experience and control the player has as they navigate a sandbox-style game. It is important that they are extremely detail oriented as they work on multiple parts of a game at a time, assuring that as they fix one piece, it doesn't affect the rest of the game. They also use their STEAM education every day at work. This career is full of science, math, animation, programming, AI design, and information management. When it comes to working on a sandbox-style computer game, it takes a lot of brains, interpersonal skills, and very hard work.

WHAT DO THEY DO?

A gaming engineer for a sandbox-style game is constantly thinking about the choice and control of the player. They write code that creates the software and programs that run the game as well as build artificial intelligence that helps the game react to the player's actions. They think through scenarios that may arise and check the code for errors and bugs, fixing them while also assuring that the rest of the game is not affected. Gaming engineers communicate respectfully and clearly with a team that may include collaborating with producers, designers, artists, marketing, distribution, and testers from around the world. As their leadership skills shine, they may manage and mentor a team of junior engineers or designers to help them learn needed skills to advance their careers.



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EDUCATION/ TRAINING

- Bachelor's degree in computer science or design and technology with a focus in computer game design
- Fluency in computer language such as Java and C++
- Competence in coding
- 2–3 years of experience in the field
- Continued learning throughout career to stay current with computer language and tools

HOW DO I BECOME ONE?

There are a few routes to becoming a gaming engineer, but no matter what, be ready to hit the books! Most gaming engineers have a four-year degree with a bachelors in a field such as computer science or design in technology, concentrating on game design. Immerse yourself in learning programming languages like Java and get very comfortable with coding. If you can get an internship, jump at it. This will give you a chance to learn on the job and interact with other gaming engineers. Also, it is always good to produce a senior portfolio to show to potential employers. It is likely that you will start at an entry-level position, such as a game developer, for 2–3 years and work your way up to becoming a gaming engineer. The learning never stops—be prepared to take continuing education courses to stay current in the newest computer languages and tools.