

# CSU33012

## Software Engineering

### Biography of

### John Carmack



John Carmack is a famous Software Engineer, Computer Programmer and Game Developer. Most famous for co-founding id Software which paved the way for three-dimensional computer graphics in video games. His impact on the advancement of technology was recognized many times by different organizations and was named 10<sup>th</sup> most influential person in technology by Time Magazine in 1999.

## Early Life

John D. Carmack II was born on the 20<sup>th</sup> of August 1970 in Shawnee Mission, Kansas, USA. John was not able to speak as an infant and spoke his first words when he was 15 months old. However, this did not stop John academically. By the time John was in second grade he nearly scored a perfect score in every standardized test. This was equivalent to ninth grade comprehension level.

His interest in computers and programming stemmed back all the way to when he was in 5<sup>th</sup> grade where he took a course on TSR-80 computers.

When John was in 12<sup>th</sup> grade his parents divorced and his mother Inga decided to take care of him. During this time, he was described as “uncontrollable and dark” by his mother and she brought him to see a psychologist to explain his recent change in behaviour. This behaviour continued after moving to live with his father Stan, alongside his younger brother Peter in Raytown. John had read the Book “Hackers” by Steven Levy (published in 1984). This book told stories of famous hackers. This had a profound impact on John, and he identified himself with these hackers and their hacker ethics.

In Highschool Carmack made his first videogame called Shadowforge and was bought for \$1,000 by a company by the name of Night Owl Productions. He used this money to buy an Apple II GS.

## Career

After graduating from Shawnee Mission East High School, he attended the University of Missouri, Kansas City. At this time, he made another game for Night Owl Productions called Wraith, which he was paid \$2,000. After two semesters he dropped out and started to work as a freelance programmer. John was hired by a game company Softdisk where he worked alongside John Romero, a game designer and programmer, Tom Hall, a game designer, and Adrian Carmack a game artist. In 1990, Carmack, Romero and Hall created a video game called Commander Keen. The four of them quickly realised each other’s potential and in 1991, the four of them left Softdisk and formed their own game development studio called id Software. At id Software they published 7 Commander Keen games which were all published as shareware. This let the user have a limited free trial of the game and let the user decide if they wanted to buy the full game.

One of Carmack's most famous accomplishments was creating the first first-person-shooter game which changed the visual perspective of videogames completely. Previously, video games were flat in appearance with characters usually moving from left to right. The release of Wolfenstein 3D in 1992 changed this view and let the user play as if they were in the game themselves through their own eyes.

Carmack's next big hit was in 1993 where he programmed the game Doom. Doom was different because of its incredible fast pace. John had to create a new engine to keep up with these fast texture changes which led to be quite CPU intensive at the time. Another advancement was the ability to play with 4 players through a local network. This let more than one person play at the same time together. A change from previous arcade style two player games.

Later in 1996 Quake was released. This was another first-person-shooter game but this time the entirety of the game was three dimensional. This was an evolution from Wolfenstein 3D as the floors were flat and you could only move in 4 directions, forward, backwards, left, and right. With the release of Quake users were now able drop or jump to different heights and allowed the user to have far more freedom. The user could now move around as if they were completely immersed in the game. Later in 1996 Quake World was released. A monumental change in videogames had occurred as this let up to 8 users play together through a type of client-server connection. This was a major change in video games as it let users play together through an internet connection. This set the standard for almost every video game after this, as an online mode was almost expected from consumers.

John Carmack is also a well-known supporter for open-source software. After only 3 years from its release, John released the source code for his hit game Wolfenstein 3D. He did the exact same thing with Doom and almost every game after that under GNU General Public License. This led to plenty of companies and enthusiasts to alter the code and create their own videogames. Id Software would also sell their own game engines to other companies so they could create their own games, like Valve when they created Half-Life. This game was built using a modified version of the Quake 2 engine.

In the year 2000 John Carmack set his sights on Rockets and building Suborbital Space travel with a crew for space tourism. Over the course of 12 years John had spent around 8 million dollars of his own personal money on this project. Unfortunately, this company is no longer in fruition and John Carmack retired the project and set his time and effort towards Virtual Reality. John said he would leave space travel to companies like Virgin Galactic and Space-X.

In 2013 John became the Chief Technical Officer for Oculus VR. After 6 years he stepped down and instead became a Consulting CTO to focus more time on artificial general intelligence.

## Personal Life

John met his wife, Katherine Anna Kang in 1997 at QuakeCon. They later married in 2000 and had their first son in 2004.

## References

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