History of Computer Graphics

Computer Graphics (CG) was first developed as a visualization tool. Computer graphics were basically introduced for scientists and engineers in government and corporate research centers, i.e., Bell Labs and Boeing in the 1950s. After then the tools would be developed at Universities in the 60s and 70s at places, i.e., Ohio State University, MIT, University of Utah, Cornell, North Carolina, and the New York Institute of Technology. The computer graphics are invented by researchers **Verne Hudson** and **William Fetter** of Boeing. It is often brief as computer graphics.

The early development that took place in academic centers continued at research centers such as the famous Xerox PARC in the 1970?s. These achievements broke first into broadcast video graphics and then major motion pictures in the late 70?s and early 1980?s. Computer graphic research continues still today around the world. Companies such as Industrial Light and Magic by George Lucas are regularly refining the cutting edge of computer graphic technology to present the world with a new manufactured digital reality.

We can understand it by the following steps:
1940-1941: The first directly digital computer-generated graphics that would associate with today as being actual CG. The very first radiosity image was invented at MIT in the 1940s.
1946: The images were first presented at the 1946 national technical conference of the Illuminating Engineering Society of North America.
1948: The images were published in the book: Lighting Design by Moon and D. E. Spencer. 1948.
1950: John Whitney Sr. invents his computer-assisted mechanisms to create some of his graphic artwork and short films.
1951: Vectorscope computer graphics display on the computer at MIT.
The General Motors Research Laboratory also begins the study of computer-aided graphical design applications.
1955: Sage system uses the first light pen as an input device at MIT Lab by **Bert Sutherland.**
1956: Lawrence Livermore labs associate graphics display with IBM 704 and film recorder for color images.
Bertram Herzog uses analog computers to create CRT graphics in the behavior of military vehicles at the University of Michigan computing center.
1957: In the National Bureau of Standards first image-processed photo was used.

The IBM 740 created a sequence of points on a CRT monitor to represent lines and shapes.
1958: Steven Coons, **Ivan Sutherland**, and **Timothy Johnson** started working with the TX-2 computer system to manipulate the drawn pictures.**1959:** The first commercial film recorder produced in San Diego, CA.
Don Hart and **Ed Jacks** invented the first computer-aided drawing system at General Motors Research Laboratory and IBM.
1960: William Fetter was first termed "Computer Graphics" for cockpit drawing.
John Whitney Sr. invents motion graphics in LA.
1962: In MIT Lincoln Laboratory **Ivan Sutherland** produced a man-machine graphical communication system.
1963: An analog computer was developed by **Charles Csuri** and used to transform a drawing.
Edgar Horwood introduced a computer graphics mapping system which is used by U. S. Housing and urban development.
1965: IBM 2250, the first graphics computer available.
1966: Ralph Baer developed the first consumer computer graphics game, "Odyssey."
1968: Tony Pritchett made the first computer animation "FLEXIPEDE" in the UK.
1972: Nolan Bushnell, "the father of Electronic games," developed PONG game.
1973: The concept of Z-buffer algorithm and texture mapping were developed by **Edwin Catmull.**
1974: The Phong shading method is developed by **Phong Bui-Toung**.
1975: Dr. Edwin Catmull introduced the Tween animation system.
1976: The first 3D appearance film was created **by Gary Demos, John Whitey Jr. at Triple-I.**
1978: For the mechanical Universe Jim Blinn produced the first series of animation. Jim Blinn has also published the technique of bump mapping.
1979: Ray tracing created at Bell Laboratory & Cornell University.
1980: The first digital computer was used in computer graphics in the Digital Equipment Corporation(DEC).
1981: The making of computer graphics for IMAX film format is done by Nelson Max at Lawrence Liver more National Laboratory. The Donkey Kong video game was introduced by Nintendo.
1982: The first broad use of 3D graphics animation was done in Disney featured film.
AutoCAD 1.0 is launched-It is only used for wire frame representation.
1985: Medical imaging software combined with Voxel technology.
1987: Video graphics array (VGA) standard was introduced.

1989: Super video graphics array (SVGA) was recommended. Tim Berners Lee developed the first website ever, which has the original URL (Universal resource locator).
1993: Mosaic, the web browser was released by UIUC for general usage. The Codename of mosaic was “Mozilla.”
The **Mosaic,** the first web browser was released. First public call made by cell phone.
1994: Netscape founded by developers of the Mosaic.
1995: First, fully CGI (Computer-generated imagery) was released. MS Internet Explorer 1.0 released.
2000: The first web-based CAD system Sketchup released.
2006: Google acquires Sketchup.
2009: The state of the art of computer graphics, as of 2009, was brief in a short video.
2013: Now, it is possible to create graphics on a home computer.
2015: **Big data** is being used to create animations.
2018: Now, we can create “realistic” graphics on mobile phones. We can also create a completely CGI-based human face in real-time.

Reference

https://tutorialandexample.com/history-of-computer-graphics