A Brief History of Computer Graphics

1950s
- Pen Plotters
- Computer-controlled oscilloscopes

1960s
- Ivan Sutherland’s SketchPad project
- Interaction
- Vector displays

1970s
- Direct View Storage Tubes (Oregon’s own Tektronix!)
- Color raster displays (CRTs)
- Hardware-accelerated vector displays
- Commercial production companies emerge
- SIGGRAPH conferences (started in 1974)
- Star Wars Episode IV
1980s
- Hardware-accelerated color raster displays
- Flight simulators
- Silicon Graphics, Inc. (SGI)
- Pixar
- Scientific visualization
- Luxo Jr., Tin Toy
- The Last Starfighter, TRON, Star Trek II: The Wrath of Khan, Young Sherlock Holmes, The Abyss
- Jen-Hsun Huang graduates from Oregon State University with a BSEE degree, 1984

1990s
- Texture-mapping in hardware
- OpenGL
- PC graphics cards
- Terminator 2, Jurassic Park, Toy Story, Star Wars Episode 1

2000s
- Hardware Shaders
- OpenGL-ES (Embedded Systems, i.e., intended for underpowered hardware)
- More movies!

2000s
- CG is now so much a part of movies that we don’t even think about it
Where Are We Now?

- Ongoing OpenGL-ES/WebGL merger with OpenGL desktop
- Mobile platforms (tablets, phones)
- 3D movies
- Virtual and Augmented Reality
- Hardware support for ray-tracing
- Vulkan, DX12, Metal
- Game Engines and giant screens being used for live backgrounds in movie-making

Immense Virtual Movie Sets are a Big Thing Now

The screen is 270° around and 20 feet high!

Uses for Computer Graphics

- Animation
- Art
- Simulation
- Games
- Cartoons
- City Planning
- Biology
- Scientific Visualization
- Data Visualization
- Medicine
- Construction
- Veterinarian
- Scientific
- Training
- Navigation
- TV
- Architecture
- Planning
- Education
- Styling
- Commercials
- Advertising
- Cartography
- Chemistry
- Manufacturing
- Land Use Management
- City Planning
- Veterinary
- Science

Computer Graphics is for everyone!