Game Development Roadmap

Step 1: Learn Programming Fundamentals(20-30 days)

Before you can build a game, you need to speak the language of computers.

Start with either:

- **C#** – Clean, modern, and beginner-friendly. It's the backbone of Unity.
- **C++** – More complex, but powerful. Essential if you aim for AAA-quality games using Unreal.

What to learn:

- Variables, loops, conditionals
- Functions and classes
- Data structures (arrays, lists, dictionaries)
- Object-oriented programming

Tip: Don't rush. Mastering programming builds the foundation for everything else.

Step 2: Pick Your Game Engine Path(1-2 Days)

Now that you've picked up the language, it's time to choose your battlefield.

- If you learned **C#**, your next step is **Unity**.
- If you learned **C++**, you're ready for **Unreal Engine**.

Both are powerful, but your choice should depend on your goals, interests, and comfort level with code.

Step 3: Learn Unity (Suggested for Beginners)(20-30 days for basics)

Unity is the perfect gateway into game development for newcomers.

Why choose Unity?

- Drag-and-drop editor for quick prototyping
- Massive community and lots of tutorials
- Build for Android, WebGL, PC, consoles—everywhere
- C# is easier than C++, especially when you're just starting

Start small: Make a basic 2D platformer or a clicker game.
Unity makes it fun to learn while creating something playable.

Step 4: Learn Unreal Engine (For C++ Learners)(20-30 days for basics)

Unreal Engine is used by the biggest game studios.

It's ideal if you want:

- High-end graphics (think Fortnite, PUBG, or AAA titles)
- More control over performance and visuals
- A deep understanding of game mechanics

Unreal uses **Blueprints** (visual scripting) as well as **C++**, so even complex ideas can be prototyped quickly.

Note: C++ can be challenging—be patient and build small projects before jumping into larger ones.

Step 5: Dive into 2D & 3D Art Creation(10-15 Days for getting familiar with tools)

Even the best game ideas need good visuals.

For 2D Art: Aseprite

- Perfect for pixel art and sprite animations
- Easy to learn, widely used in indie development
- Great for platformers, RPGs, and mobile games

For 3D Modeling: Blender

- Create 3D models, environments, and characters

- Use for both Unity and Unreal
- Also supports sculpting, rigging, animation, and rendering

Intro to Blender (3 Days)

- UI and navigation
- Basic modeling (cube, extrude, bevel)
- Simple texturing and materials
- Exporting assets for Unity (FBX/GLTF)

Resources:

- Blender Guru Donut Tutorial (YouTube)
- Other Tutorials available online

Tip: Artists and developers often collaborate—knowing these tools gives you a creative edge.

Final Advice: Your Journey Has Just Begun

Game development is an adventure. Your first few games might be simple, but each one teaches you something new.

Start small:

- Make a Pong clone
- Build a basic RPG battle system
- Join game jams (like Ludum Dare or Global Game Jam)

Keep building your portfolio.
Watch tutorials, read dev blogs, and stay curious.
Connect with other developers—online forums, Discord, and local meetup.