

# What's the best way to get started in modern game programming and application programming? [closed]

Asked 15 years, 11 months ago   Modified 12 years, 11 months ago

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3



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Closed 8 years ago.

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I want to get started game programming in C/C++, or C# with DirectX or OpenGL. I'm not really sure what I want to get started, but a smallish project like a simple engine would be nice to get started with. Additionally, I would like to learn about designing applications in Windows with C#, .NET 3.5, and WPF. Utilizing C# and .NET, I intend to create a reasonably large project that would integrate with the windows shell. However, I do not really know where to start. Moreover, I'm well versed in C/C++, JAVA, and I'm taking an advanced Computer Science class

focused on Algorithm Complexity and Classic Computer Science problems. Any help on where to get started would be appreciated.

c#

c++

c

.net-3.5

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asked Jan 13, 2009 at 5:44



dr.manhattan

4,962 ● 3 ● 20 ● 10

## 3 Answers

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7



Modern game programming is tremendously complex as a whole but it is also very fractionated in terms of division of labor which helps reduce this complexity. Modern games are usually too complicated and large for one person to have a detailed and in-depth knowledge of the entire process. There are a lot of specialties within game programming that you might want to familiarize yourself with and decide if there is a particular aspect you really like doing:

- [Game Physics Programmer](#)
- [Artificial Intelligence Programmer](#)
- [Graphics Programmer / 3D Modeling](#)
- [Sound Programmer](#)

- [Scripter](#) (using in-house scripting for nearly all of the in-game events)
  - [UI Programmer](#)
  - [Network Programmer](#)
  - [Tools Programmer](#)
- ... and more.

Recently, for my Computer Graphics course in College we used the open source [OGRE 3D](#) engine. Not only is this an extremely robust 3D engine but it was a blast! Develop a medium sized game using it and you will get a good taste of many of the above mentioned game programming specialties. You'll find yourself doing 3d modeling, sound effects, physics programming, AI, the works.

Screenshot of a recent OGRE 3D Game: [alt text](#)  
<http://www.ogre3d.org/gallery/albums/album76/snapshot20081030015244.jpg>

There are some caveats to the Game Programming world. I've often heard and read [articles](#) surrounding the industry talking about the long hours, the crunch time, the unpaid overtime and the relatively lower pay when compared to other types of programming. But honestly, if this is something you want to do then don't let those things get you down. I like to think that good pay and working conditions will come to most people who are sufficiently driven.

As far as school, you mentioned you were taking some CS courses. Take some math courses as well! Game programming is one area where Math is used extensively in several phases of development.

Most of the articles I have read involving the industry suggest that someone with no professional experience looking to get break into gaming should put together a portfolio of small games you have written demonstrating your abilities.

It is also fairly typical for junior game programmers to start out as the [Tools Programmers](#) writing in-house software for the rest of the game development team. Things like Map-Making programs, diagnostic tools, format conversion, etc. You can then work on advancing beyond this.

Good luck!

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edited Jan 13, 2009 at 9:18

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answered Jan 13, 2009 at 6:10



[mmcdole](#)

92.7k ● 61 ● 188 ● 224

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Thanks for your reply. In fact I am taking math courses: Discrete Structures, and Calculus with Analytical Geometry. Additionally, a recent source of inspiration leading me toward game programming has been [dyson-game.com](#) (Dyson), an



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You might want to check out

- <https://stackoverflow.com/questions/174830/learning-game-programming>
- <https://stackoverflow.com/questions/332650/open-game-dev-projects>

If you want to learn about developing an engine, I recommend [this book](#) :)

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edited May 23, 2017 at 10:27



Community Bot

1 • 1

answered Jan 13, 2009 at 6:05



41104

219 • 1 • 4 • 13



0



With C/C++ I'd say the [NeHe](#) tutorials are a great place to get started (OpenGL) and [DirectXtutorial.com](#) for DirectX. If you are leaning towards the C# category, XNA is the way to go.

A great site to help you further on the subject is [GameDev](#). There are tons of aspiring developers just like yourself and a lot of people willing to help you in just about any aspect of game programming, good luck!

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answered Jan 13, 2009 at 5:50

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user36457

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