

Università degli Studi di Padova

# UNREAL ENGINE

**Mobile Programming and Multimedia** 

M.S. in Computer Science

Andrea Favero - Filippo Brugnolaro



# **Unreal Engine**

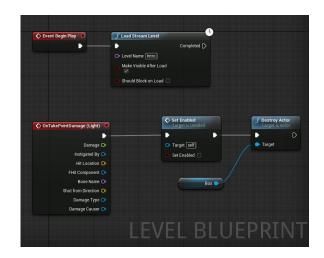
- **❖ 2D/3D** game engine
- Developer: Epic Games
- Who use it: famous AAA game studios
- Costs: 5% of game's revenues if > 1M\$, otherwise free
- License: source-available, royalty model for commercial use
- Supported platforms: Windows, Consoles, iOS, Android
- Languages: C++, Blueprint

## Why did we choose it?

Interested to know more about frameworks for video games

Cutting-edge technology

Great visual graphics and effects



#### **Pros**

- Performances
- Large Community
- Blueprint as alternative to C++
- Mobile Previewer

### Cons

- Restricted number of assets
- Struggle with a lot of data
- Learning curve



# Classification according to Raj & Tolety

- Cross compiled framework
- Blueprint-only's iOS projects can be built and tested even from a Windows machine
- iOS applications require Xcode to sign projects for shipping on the App Store



### References

- https://docs.unrealengine.com/5.0/en-US/general-mobile-development-for-unreal-engine/
- https://docs.unrealengine.com/4.27/en-US/SharingAndReleasing/Mobile/Rendering/
- https://docs.unrealengine.com/4.27/en-US/SharingAndReleasing/Mobile/Previewer/
- https://docs.unrealengine.com/4.27/en-US/SharingAndReleasing/Mobile/iOS/Windows/
- https://docs.unrealengine.com/5.0/en-US/setting-up-an-unreal-engine-project-for-ios/
- https://docs.unrealengine.com/5.0/en-US/getting-started-and-setup-for-android-projects-in-unreal-engine/
- https://docs.unrealengine.com/4.27/en-US/SharingAndReleasing/Mobile/Android/GettingStarted/
- https://docs.unrealengine.com/5.0/en-US/setting-up-an-unreal-engine-project-for-mobile-platforms/
- https://forums.unrealengine.com/t/difficulty-of-cross-platform-development/89204
- https://forums.unrealengine.com/t/how-to-develop-playstation-xbox-pc-mac-ios-android/33778/3
- \* <a href="https://www.gamesindustry.biz/what-is-the-best-game-engine-is-unreal-engine-4-the-right-game-engine-for-you">https://www.gamesindustry.biz/what-is-the-best-game-engine-is-unreal-engine-4-the-right-game-engine-for-you</a>
- https://www.youtube.com/watch?v=q\_1qy1HNQjQ
- https://pinglestudio.com/blog/mobile-game-development/unreal-engine-for-mobile-game-development
- https://rvtechnologies.com/unity-3d-vs-unreal-which-gaming-engine-is-better-for-mobile-game-development/
- https://codersera.com/blog/unreal-engine-vs-unity-choose-best-game-engine/
- https://www.youtube.com/watch?v=HFtQ7yix1-U
- https://www.youtube.com/watch?v=emOsoyHSmAE
- https://www.youtube.com/watch?v=7payS86oJ0k