Nicola PALOMBA
Software developer

🎓 FORMATION

2019-2022	**Bachelor Degree in Computer Science**, Università di Pisa
	Software Engineering · Operating Systems · Linear Algebra · Calculus · Algorithms · Languages · Databases
2014-2019	**I.T. expert diploma**, I.T.I.S. Galileo Galilei Livorno, Computer Science curriculum
	Java · C · C++ · HTML · CSS · JavaScript

💼 EXPERIENCE

March 2022 June 2022	**Bachelor Thesis, VISUAL COMPUTING LAB, ISTI (CNR), Pisa, Italy** > Contributed to Relight, software for the generation and visualization of Relightable Images (RTIs) > Implemented D-Stretch algorithm and extended it to enhance specific hue in an image. C++ · Qt · JavaScript · OpenGL
April 2019 November 2018	**C++ intern developer, I.D.S. GEORADAR, Pisa, Italy** Developed an application used to test radar algorithms on basic 3D shapes. > Basic 3D shape generation depending on user-specified parameters and rendering > Worked in a team of 3 students, coordinated with other employees C++ · Qt · Git · Qt3D

🖥 PROJECTS

DEBUT ENGINE 🔗 Debut on Github

Debut is an open source game engine that I am currently using to learn the process of developing a graphics engine. It comes with an editor (Debutant) used to help users make games. Debut is written in C++ and some of its features include :
> OpenGL 2D rendering and physics, 3D rendering and physics, material system, native C++ scripting
> Architecture built to support multiple graphics API and operating systems
> Basic Asset Manager, Entity Component System (EnTT)

C++ · CMake · ImGui · Rendering · Computer Graphics · Game Engine · Graphics · OpenGL

YASS 🔗 YASS on Github

YASS (Yet Another SpaceShooter) is a 3D spaceshooter made with Unity. Some of its features include :
> Asteroid fields and world boundaries
> Many different enemy spaceship behaviours (wander, chase, flee...), customizable auto-aim system and free movement

Unity · Unity engine · C# · Game development · 3D

LOSPEC PIXEL EDITOR 🔗 Lospec Pixel Editor on Github

Open source, web-based Pixel Art editor written in JavaScript and Node.js. I am currently the top contributor to the project, having 14 merged pull requests and more than 250 commits. Some features I have implemented include :
> Eraser tool and transparency, rectangular selection, magic wand, lasso selection, rectangle and circle tools
> Canvas resizing options and scaling agorithms, layers and layer options

JavaScript · Node · WebApp · Github · Git

</> PROGRAMMING LANGUAGES

Language	Level
C++	●●●●●
C	●●●●○
C#	●●●●○
Java	●●●○○
JavaScript	●●●○○

✛ HOBBIES

> Game development
> Oil painting and pixel art
> Electronic music production

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