Daniele Alessi

Contacts

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Personal Website & Portfolio:
https://eldanee.github.io

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Education

Master degree in Computer Science Engineering @ Politecnico di Milano
(September 2021 - *April 2025*)

Erasmus programme @ Universidade de Lisboa
(February 2023 - July 2023)

Bachelor degree in Computer Science Engineering @ Politecnico di Milano
(September 2018 - September 2021)

Experience

IT Specialist Intern, Bending Spoons; Milan, Italy
(March 2019 - September 2020)

Skills

Computer Graphics
- Real time rendering using **Vulkan** and **GLSL**, featuring occlusion culling, indirect draws and post processing effects.
- CPU and GPU accelerated ray tracing using **Vulkan** and **GLSL**
- Particle systems using **Vulkan**/**GLSL** and **WebGPU/WGSL**

GPU programming
- GPU accelerated Position Based Dynamics simulation using **Vulkan Compute** shaders for my master thesis
- Basic knowledge of **CUDA**

Videogame Design and Programming
- Designed and programmed a video game in **Unity** for an academic project (Beta version available at *https://polimi-game-collective.itch.io/diagonaliz*)
- Good knowledge of Unity **Universal Rendering Pipeline** and shader system

Programming Languages
- **C++** (Intermediate)
- **C#** (Intermediate)
- **Python** (Intermediate)
- **C** (Basic)
- **Java** (Basic)

Others
- **Web programming**: basic knowledge of HTML, CSS and JavaScript
- **Databases**: good knowledge of Relational Model, SQL

Languages
- **Italian**: native speaker
- **English**: proficient in both speaking and writing