

LUCA ALEXANDRU SAS

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📍 Leeds, United Kingdom

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EDUCATION

University of Leeds - BSc Computer Science
September 2017 - July 2020

EXPERIENCE

Open Source Contributor

Raylib (www.raylib.com)

📅 October 2019 - Present

I started the rayfork project as a fork of the raylib C99 game engine which I redesigned to be cross platform, single header and allow for full control over memory allocations.

I also contributed fixes to low level bugs such as memory leaks, platform audio issues, buffer overflows and provided improvements such as the removal of global variables. I also improved C++ compatibility.

Software Engineer - Independent Contractor

Collider Visuals (www.collidervisuals.com)

📅 November 2017 - March 2018

I ported an Unreal Engine 4 VR application created for Bottega Veneta, Alexander McQueen and Procter & Gamble to iOS.

I helped develop a VR Car configurator for Mercedes Benz and developed the companion android mobile app using Kotlin. I also added voice commands implemented with a Microsoft API in C# and NodeJS.

Software Engineer and Designer

Colegiul Pacientilor (www.colegiulpacientilor.org)

📅 October 2017 - Present

Volunteered to develop a mobile app platform for the largest patients rights organization in Romania, using Kotlin and a C# Azure backend.

Created the logo and all other graphical materials used by "Colegiul Pacientilor" including Public Health Educational Materials, Promotional Materials and a comic book for an event organized in partnership with DinoPark Rasnov.

Other Open Source Contributions:

PAR Headers (github.com/prideout/par)

I improved the custom allocator support.

STB Image (github.com/nothings/stb):

I fixed issues regarding custom allocators in the gif API.

MSVC STL (github.com/microsoft/STL)

I provided some fixes to issues in generic C++ code.

raygui (github.com/raysan5/raygui)

I made the library C++ compatible.

SKILLS

C++ 20, C 99, Java, Kotlin



Python, C#, NodeJS



Zig, Dart



AWARDS

2019 - University of Leeds BT Hackathon 2nd
2019 - Expedia Hackathon 3rd

2018 - University of Leeds Hackathon 1st
2018 - Google HashCode @ University of Leeds 1st
2018 - London Sky Hackathon 1st

2017 - Google Dev Group Hackathon 1st
2017 - InfoEducatie National Contest 2nd
2017 - Grepit 10 - Games 1st
2017 - Global Game Jam Romania 3rd

2016 - GrepIT 9 - Software 1st
2016 - InfoEducatie National Contest 1st

Projects

Rayfork 🔗 github.com/SasLuca/rayfork

Single header, C99, cross platform, game dev library with full control over allocations. I have been the lead dev on the project since I started it in 2019.

I have refactored over 50000 lines of code and 300 functions from raylib to enable more granular and full control over allocations and made the library platform independent. I also optimized the code by removing temporary allocations and improving algorithms.

LSCP - A library for parsing C

A single header C99 library for parsing the C programming language according to the ISO standard. Developed as my final year university project.

UK Shelters and Food banks API

A python API that gathers information from multiple sources on shelters and food banks in the UK.

University of Leeds Computer Society

I served as Vice-President and Chair of the Computer Society at the University of Leeds, from 2017 to 2019. During that time I helped organize and manage events such as Google Hash Code, guest talks and parties. Now I help the new committee with the Leeds Game Dev Club, where I teach students how to write video games in C.

InfoEducatie - Judge

I have been a judge at the National Olympiad "InfoEducatie" in Romania since 2018, judging over 40 projects every year and mentoring and providing feedback to all participants.

Talks and articles

I have written articles on my website on topics such as low level memory management and library design. I gave one of the most watched talks on YouTube from ACCU2019 and I was accepted as a speaker at other conferences such as emBO++. I also stream coding on Twitch.