

Olegs Jakovlevs

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ABOUT ME

I have wide experience working with various technologies and programming languages, currently focusing on game engine and physics programming using C++. I enjoy new experiences, extreme sports, and aim to be a part of the teams that develop revolutionary game titles, akin to the developers of Bioshock, Half-Life, or the Horizon series.

WORK EXPERIENCE

Double Eleven

Middlesbrough, United Kingdom

Placement Programmer

Sep 2022 – Sep 2023

- Contributed to Rimworld: Ideology console port and Prison Architect 2 development
- Implemented and troubleshot UI elements
- Worked on core systems involving marshalling
- Developed features with different console APIs
- Managed mod system implementation and integration
- Refined the AI task system for simulation purposes

Sapienza University of Rome

Rome, Italy

Research Intern

June 2022 – Sep 2022

- Implemented robot custom behaviour using YOLO and ROS
- Collaborated on the utilization of semantics mapping and reasoning AI for the "Tiago" robot

University of Lincoln

Lincoln, United Kingdom

Associate ICT Developer

Jan 2022 – May 2022

- Developed chatbot using .NET, Vue and Bootstrap technologies
- Created navigation maps using JOSM technology

Scandiweb

Riga, Latvia

Software Developer

Jun 2019 – Nov 2021

- Built custom docker images and support existing docker infrastructure
- Supported API-based applications
- Built data parsers using Python
- Developed websites using different engines and frameworks (WordPress, Shopify, Laravel, Symphony, Magento)
- Created software for automated test submissions evaluation using

EDUCATION

University of Lincoln

Lincoln, United Kingdom

Bachelor's Degree - Games Computing

Expected Sep 2024

Expected Grade: 1st (mean 80%)

- Algorithms And Complexity: 87%
- Advanced Programming: 81%
- Game Programming: 83%
- Scalable Database Systems: 90%
- Artificial Intelligence: 77%

PERSONAL PROJECTS

Motorbike Physics Game

On-going

- Create custom physics middleware based on PhysX 3.4.2
- Implement a simulation replay system
- Develop a game scene showcasing physics features

- Repository: <https://github.com/OlegJakovlev/PhysicsEngine>

GPU Broad-phase Physics

On-going

- Implement spatial data structures such as K-D tree, Octree, BVH on GPU using CUDA
- Compared the performance metrics using Nsight Compute software

Maze Solver Algorithms

August 2023

- Implemented algorithms such as BFS, DFS, Pledge, Dead-end, Treumax, A*, Soukup
- Demonstrated algorithm visualization using Unity engine
- Repository: <https://github.com/OlegJakovlev/MazeSolvers>

Bomber Game

May 2022

- Created a game engine from scratch using C++ and SDL library
- Utilized architecture and optimization algorithms
- Repository: https://github.com/OlegJakovlev/SDL_Engine

Project Metro Compiler - x86 Programming

Aug 2021

- Learnt assembly low-level programming fundamentals
- Gained an understanding of bootloader structure and execution loop
- Originated x86 learning material for students

ADDITIONAL

Languages:

- English (Fluent)
- Russian (Fluent)
- Latvian (Professional Working Proficiency)

Certifications & Training:

- Microsoft Certified: Azure AI / Data / Security Fundamentals May 2022
- MTA: Networking Fundamentals Dec 2021
- MTA: Database Fundamentals Nov 2021
- MTA: Software Development Fundamentals Feb 2021