

Oskar Oramus

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United Kingdom

Contact

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Phone:

Portfolio: <https://killereks.github.io/personal-website/>

Education

University of Exeter
Bsc Computer Science

Sept 2019 - Jun 2023

Modules include: Artificial Intelligence, C Family, Group Software Project, Differential Equations, Vector Calculus, Real Analysis, Data Structures and Algorithms.

Petroc College - A Levels

Further Mathematics, Mathematics and Computer Science.

2017 - 2019

Grades A*-C.

Skills

- ❑ Deep understanding of applied mathematics including but not limited to matrices, vectors and differential equations.
- ❑ 7 years of experience programming, 4 years of experience using Unity Engine and 3+ years of experience in Web Development.
- ❑ Experience with Rasterization, Ray Tracing, Ray Marching
- ❑ AI using BT and Machine Learning
- ❑ English - Fluent, Polish - Native

Work Experience

Self Employed - Software Developer Freelancer

Sept 2021 - Current

Design, development and support of bespoke software solutions.

Notiontheory - AI Programmer

Jul 2021 - Sept 2021

Using Houdini with AI acceleration to create procedural content.

Creation of unused asset removal tool with advanced search filtering which massively improved workflow and reduced project size.

Projects

Self driving cars with a custom made Neural Network

- ❑ Used my knowledge of differential geometry to create a car collision system. The model utilizes a simple drifting mechanic, relying on pattern recognition and machine learning prediction algorithms.

Feature-Rich 2D Game Engine made with no libraries

- ❑ Engine uses algorithms like QuadTrees and camera culling to optimise render calls. Physics engine that updates all entities, automatically creates collision shapes based on textures. Advanced inventory/equipment system with item enchantments. Game runs in browser on a single thread at ~150-200 fps.

3D rendering engine using raymarching using GLSL

- ❑ Supports: rendering 3D fractals like mandelbulb, infinite shapes, shadows, ambient occlusion, lighting (direction and point), glowing outlines, shape cutting and merging all in real time.

Achievements

- ❑ Volunteered for 2 weeks helping people with psychiatric disabilities, it was with the National Citizen Service. (Recognised by Theresa May). In the process I have learned how to communicate and work as a team while also raising money for the organisation.
- ❑ Created a mathematical library that can handle numbers up to $9.99999 \times 10^{(2^{31})}$, handles basic operations, exponentiation and logarithms extremely quickly.
- ❑ Made a farming browser game that has been played over 195 thousand times.
- ❑ Got #1 place in two Game Jams (UDC and Exeter University).

Technical Skills

Java | Python | C# | C/C++ | HTML/CSS/JS | Haskell | GLSL | Prolog
Git | MySQL | Trello | Agile | Kanban | Scrum | Blender