Focus of the project

Technically challenging and interesting project

Draws from many disciplines – mathematics, parallel computing, graphical rendering

Outcomes of the project

Created a real-time rendering engine for signed distance functions, which is capable of rendering 3d fractals, CSG-models, or algebraic or meta-surfaces

This was tested on several key scenes:

Mandelbulb and Sierpiński cube and tetrahedron fractals

Various CSGs including sphere box and trivial scenes

Algebraic surfaces and meta-surfaces – Klein bottle

<https://mathworld.wolfram.com/AlgebraicSurface.html>

Graphical user interface, text, application, email

Description automatically generated