Title
Multidimensional Web-Plotter

Supervisor
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Project Description
The aim of this project is to create a web-based, multi-dimensional plotter to provide a visualisation tool to allow users to explore massive, multi-dimensional data sets. Visualising large, complex data sets is a common requirement and modern graphics cards can be used to speed up the rendering to provide a fast, visualisation tool with additional effects used to represent different data attributes with web technologies such as WebGL or the higher level three.js. This project would suit a student who was interested in three-dimensional computer graphics, web applications, visualisation of large, complex datasets and programming for graphics cards. The project could extend the plotter to further dimensions by adding additional graphical effects to represent additional information in the data set, obtaining and presenting data in real-time.

Skills the student will develop
A front-end web development language such as JavaScript, WebGL or Three.js, 3D graphics, GPU shader programming.

Industrial Relevance
This work is relevant to Web applications, 3D graphics programming and data visualisation.