Structured Abstract - Analyzing the Performance of Terapixel rendering in Cloud (Super)computing

To perform EDA on the given data and unearth insights which might address the business understanding. And also to address the below questions based on the analysis.

- Which event types dominate task runtimes?
- What is the interplay between GPU temperature and performance?
- What is the interplay between increased power draw and render time?
- Can we quantify the variation in computation requirements for particular tiles?
- Can we identify particular GPU cards (based on their serial numbers) whose performance differs to other cards? (i.e. perpetually slow cards).
- What can we learn about the efficiency of the task scheduling process?

Success Criteria :

Success criteria is do through analysis of the data and find useful insights based on above points.

Tools Used :

This project is done using python coding following CRISP DM Methodolgy.

- GITHUB
- Jupyter Notebook
- Google Colab
- Microsoft word

The analysis was done on the understanding that performance is calculated based on runtime of the task by the GPU.

The Analysis was done and the results, plots are interpreted and it shows the outlook of the performance and stats of the nodes and the tasks handled by AZURE. Also the GPU's are analysed for best and worst performance based on process time.

Heat Map of Tile and Process time

Run time of Individual Events including Total Render