

### Visualizations – NVIDIA Product Comparison:

<https://lookerstudio.google.com/reporting/b7eb644b-dd67-4d2c-a6ad-02adc6501aa6>

To create the visualizations, I initially attempted to use Looker, but I encountered an issue where FPS performance values were stored as text (e.g., "100% (144.0)"). This prevented aggregation on these metrics making this unusable for the data I had selected. As an alternative, I exported the data from beaver to a CSV, and used this CSV to transform the data. This new format on the CSV allowed for the transformation of the FPS data into numbers which made it possible to perform aggregations on the data for proper visualization. I then uploaded the CSV files into Looker and started creating interactive visualizations based on my business questions.

For my descriptive analytic questions, I prioritized using Looker's tables to get a general overview of the data I would be analyzing in the diagnostic analytics. For example, I used a table that showed each of the GPU's and their respective memory size, clock speed, and MSRP, and a heatmap showing GPU chips based on their average 4k fps performance. Once I was able to gain a better understanding of these numbers, I used line and bar charts to show diagnostic analytics. For my diagnostic analytics, I used a line chart to show TMU, ROP, MSRP, and Clock speed's trend up against memory size, and a bar chart that shows where GPU's performance based on average 4k fps.

From these visualizations, I can help NVIDIA product development and GPU enthusiasts understand the performance and pricing of GPUs. From these outputs I was able to conclude that Memory size has the largest impact on MSRP, Arctic Sound and GA 102 chips result in the highest fps performance, and that NVIDIA remains top of the charts in both performance and pricing. My recommendations would be look out for / prioritize producing high quality GPU's focusing on memory speed and inclusion of Arctic Sound or GA 102 chips to achieve the best possible performance and drive consumer demands.