

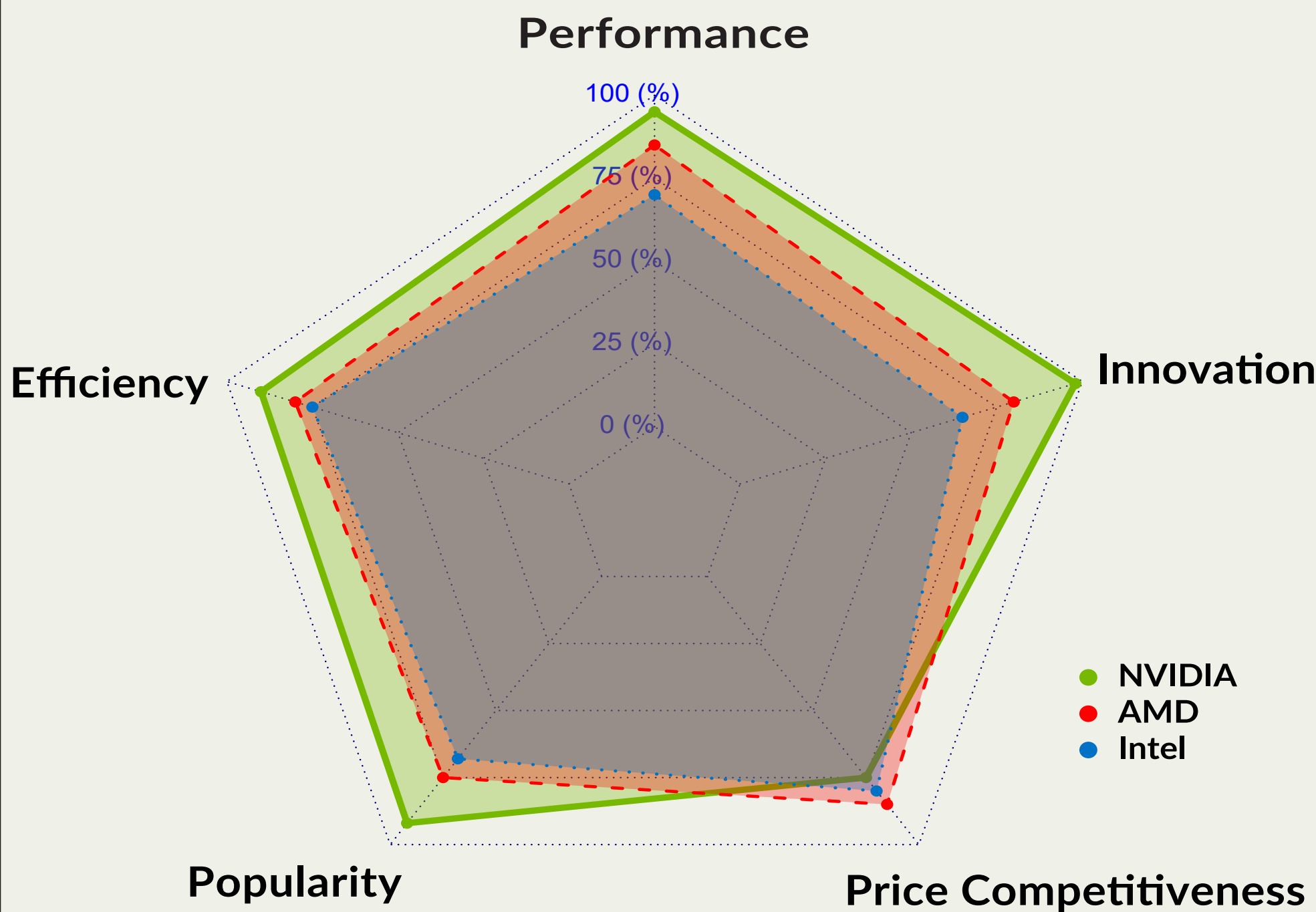


NVIDIA's Game-Changing GPUs

Performance, Market Impact, and Competitive Edge

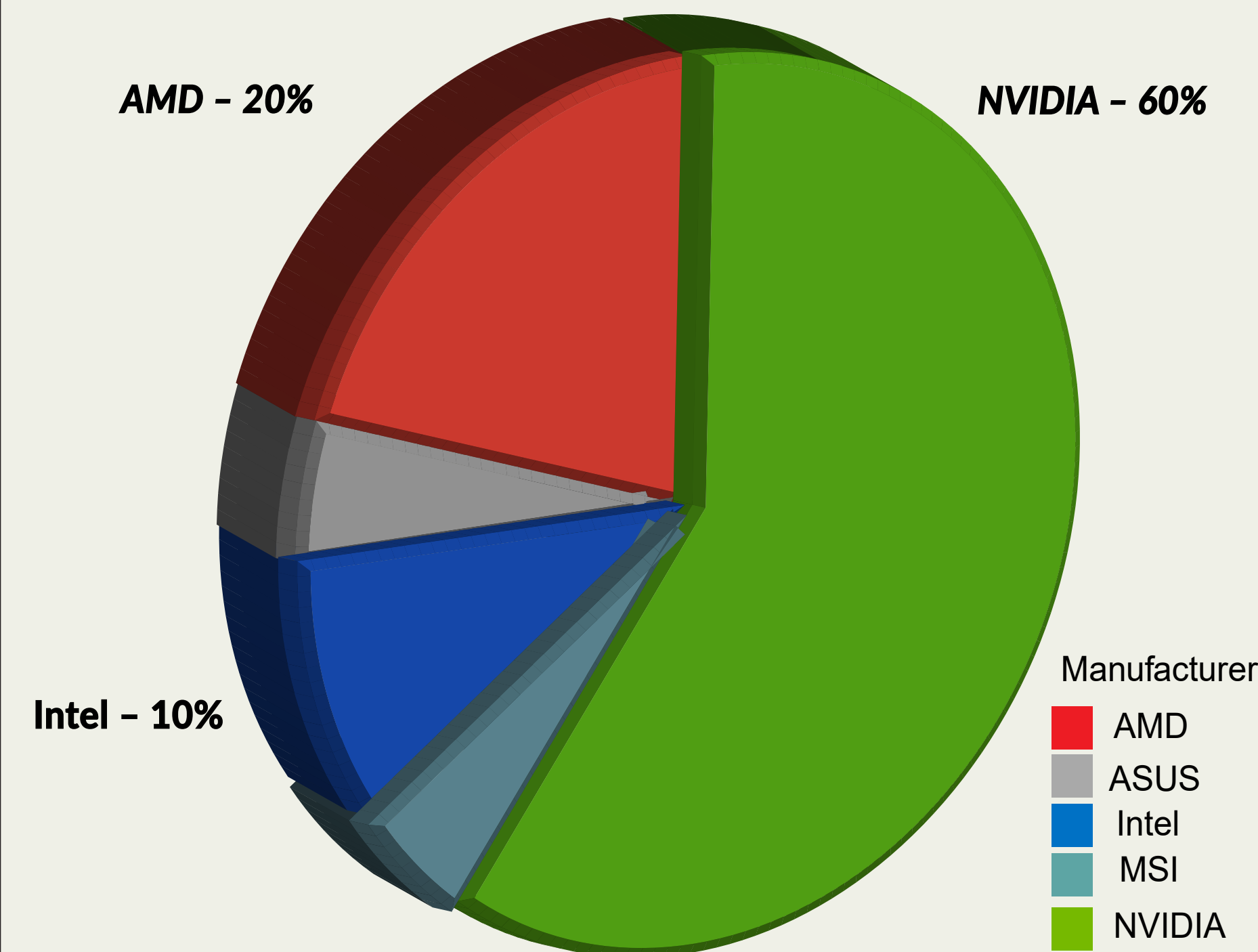
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IST 719
information Visualisation

"NVIDIA vs Competitors: A Multi-Dimensional Performance Comparison"



Data Description

This project explores GPU specifications, benchmark scores, stock prices, and launch timelines across five tech giants. It includes over 12,000 rows and 30+ variables, cleaned and processed in R to highlight key GPUs and trends from 1996 to 2024. Outliers were removed, scores normalized, and stocks indexed for cross-company comparison.

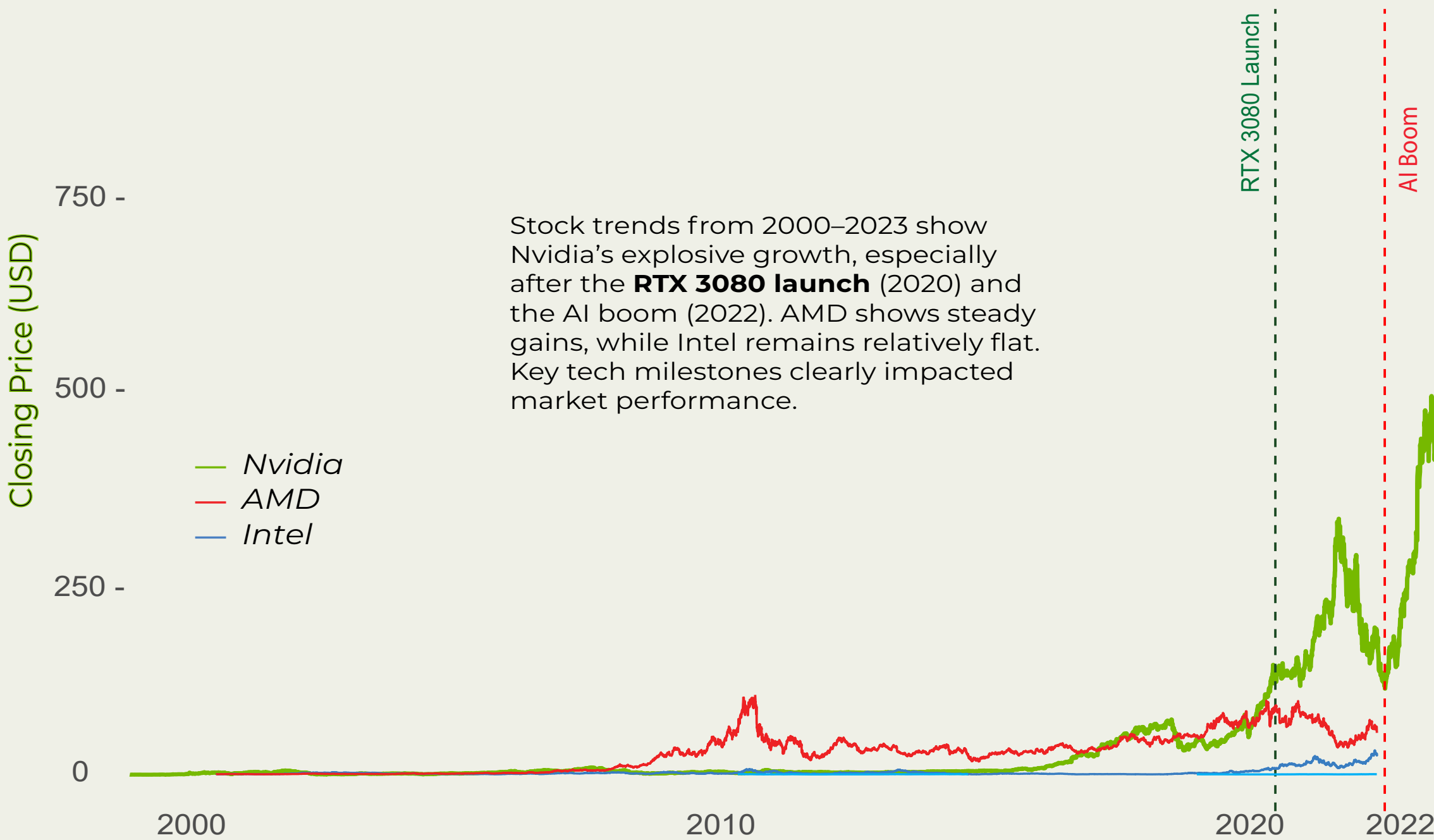


NVIDIA's transformation from a GPU vendor into a dominant force in AI and gaming has reshaped the tech industry. This poster explores how its innovation cycle, product performance, and market leadership have driven long-term success.

Motivation

Who Cares?
Gamers, AI engineers, investors, and tech enthusiasts.

Why?
NVIDIA's strategy influences GPU pricing, availability, and innovation worldwide.



What do GPU performance benchmarks, launch frequency, and stock market trends reveal about NVIDIA's strategy and success compared to AMD, Intel, ASUS, and MSI?

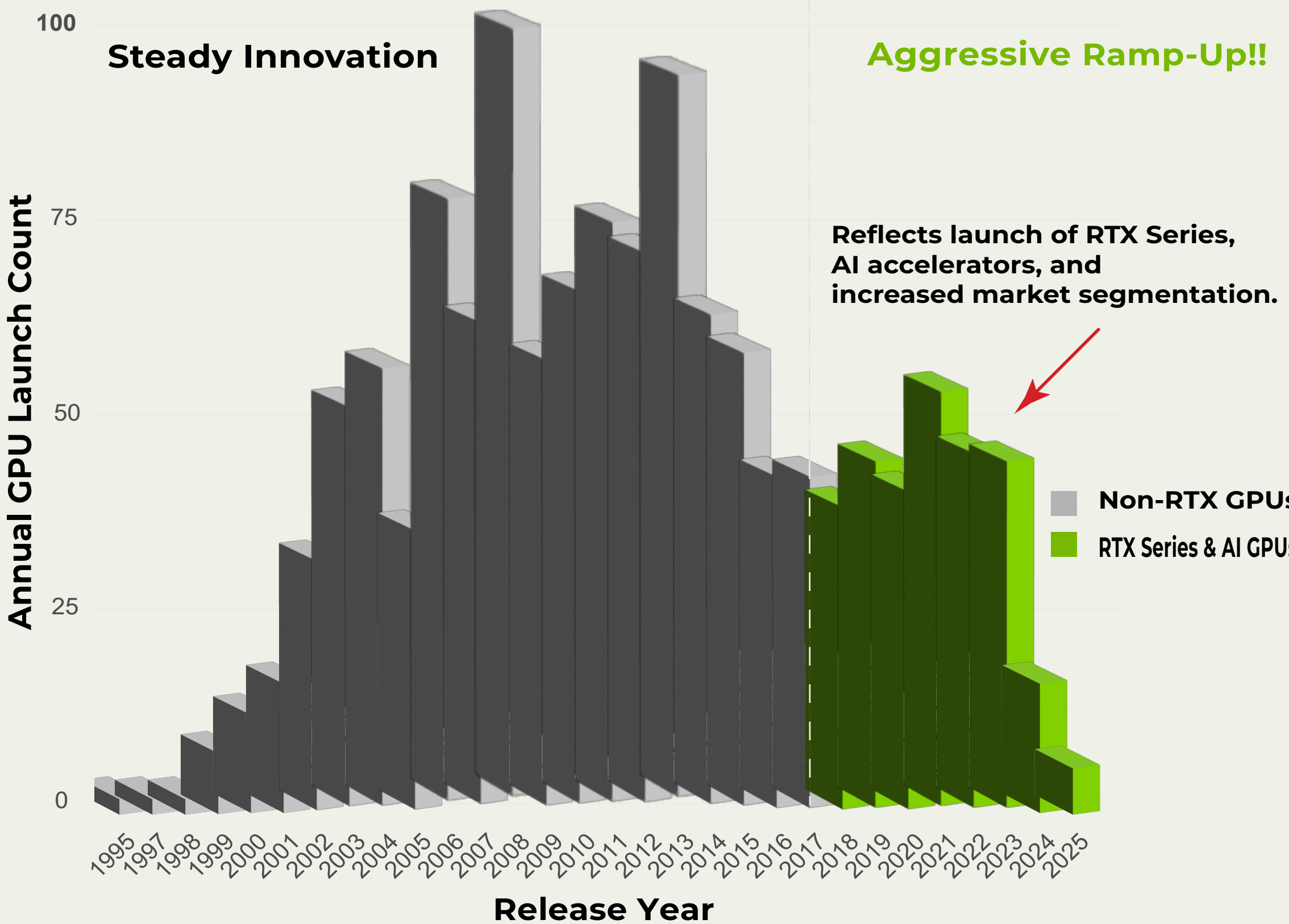
How has NVIDIA leveraged innovation, product performance, and timing to outperform its competitors in both technology and market value?

Summary

This poster presents a data-driven quest. NVIDIA's rise isn't just a success story—it's a blueprint for market disruption. Through bold innovation, strategic GPU launches, and a keen grasp of industry shifts, it has redefined performance leadership. The data shows a company not just leading, but shaping the future of computing, AI, and accelerated graphics.

R Packages Used: tidyverse, ggplot2, lubridate, scales, fmsb, ggpubr
Tools: R, Adobe Illustrator
Source Links:
<https://gpu.userbenchmark.com/>
<https://www.kaggle.com/datasets/alanjo/graphics-card-full-specs>
<https://www.kaggle.com/datasets/kapturovalexander/nvidia-amd-intel-asus-msi-share-prices>

NVIDIA GPU Launches Over Time



Top 10 Highest Performing GPUs (Competitive Market)

Ranked by benchmark scores across all brands

