MACHINE LEARNING TECHNOLOGY

Why Nvidia plays a big role in the AI/ML industry

Niranjan Rao Saraf Srinivas Rao

San Jose State University

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Since the launch of ChatGPT in the year 2022, there has been a massive wave in the tech industry. Countless chatbots have been released which not only pertains to simple question and answer model but also in machines generating images, videos, audios and more. Day by day venture capitals are investing in companies dealing with AI and ML to ride the trend. I visited the Samsung Developers conference in 2024, and every stall had AI attached to it. But what is truly powering the AI and ML advancements we see today? How are billions of prompts being answered every day? In this paper I aim to explain to you how a mere GPU company called Nvidia plays a pivotal role in the AI market.

Nvidia was founded way back in 1993 and their initial focus was on GPUs for video games. Years went by and they slowly started shifting towards professional GPUs which could be used in visual computing and not only gaming. ChatGPT might have been released in 2022, but the rise of ML and AI had started way before this in 2010. This is when Nvidia saw the opportunity to shift its focus since ML and deep learning rely a lot on 2 things, data and computational power which luckily happens to be one of the things that GPUs are good at with their ability to do parallel processing. Which means that the growing demand for all AI models fuels the surge in the need for more and more GPUs.

As the demand increased, we could see a sharp increase in Nvidia market share. Their GPU became essential in training machine learning models and AI algorithms. This not only leads to the stock price of Nvidia going up by a staggering 1700% in the last 5 years but also lead to 8 out of 10 Nvidia employees being millionaires. Their GPUs power some of the most advanced AI systems in the world right now.