

## **Graduate Professional skills**

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Supercomputers

A supercomputer is a computer with a higher performance level than a basic computer. This is measured in floating point operation per second (FLOPS). Supercomputers have been crucial in speeding up studies that could better understand how the heart reacts to various treatments, and the creation of COVID-19 treatments as well as avian and swine flu vaccinations. Supercomputers have changed our lives in different ways. Few are mentioned below.

“A supercomputer is a computer that performs at or near the highest operational rate for computers. Traditionally, supercomputers have been used for scientific and engineering applications that must handle massive databases, do a great amount of computation, or both.”

The First one is the weather. Nowadays 2 room sized supercomputers are used by national weather. These are 100000 times more powerful than basic computers. So that it will improve the accuracy of weather predictions. Secondly, Supercomputers have contributed to the development of faster, safer, and more energy-efficient automobiles. These computers assisted in the development of longer-lasting electric vehicle batteries as we approach closer to the age of autonomous vehicles. When it comes to transportation, The police have already installed 3D cameras, regular cameras, and supercomputers to revolutionize the way that traffic enforcement is done. All possible outcomes on a road are predicted by a supercomputer, which swiftly responds to the situation. Finally, Supercomputers are also used by financial services organizations in a variety of additional ways, including managing high-speed trades, analyzing credit risk, evaluating investments, confirming regulatory compliance, and identifying and thwarting cyberattacks.

“Supercomputers hold the potential to help us improve the accuracy of our weather predictions, as well as the potential to help improve how we harness our diverse energy resources. Now we move into the era of autonomous vehicles, so these computers helped design longer-lasting electric vehicle batteries”

In conclusion, Supercomputers are a permanent fixture and our future. More IT companies will create quick computers in the future, assisting us in our transition to an AI-driven society.

Ramin Etemaadi., Michel R.V. Chaudron ,12 July 2014 . “World's fastest computers have changed your life”

<https://www.analyticsinsight.net/top-5-ways-in-which-supercomputers-have-changed-our-lives/>