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Roles of statistics in computer science

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Data analysis: statistics in computer science is used to and interpret large sets of data helping computer scientist mak Sense of complex information.it also allows computer scientist to personalize the content or look and feel his or her website depending on, for instance,his or her sex or nationality.

Data mining: statistics helps in identifying patterns and trends with large datasets ,which is essential for data mining applications in computer science.

Performance evaluation:

Statistics is used to compare and measure the performance of different computer algorith-Ms and systems.

Machine learning: statistics provides the mathematical foundation for machine learning algorithma, enabling computers to learn from data and make predictions or decision.

Quality assurances :s-

tatistics is used to assess the quality and reliability of software and hardware system through techniques such as reliability analysis and testing.

Experimental designs;

Statistics helps in designing and analyzing experiments to test the effectiveness and performance of computer systesm and algorithms.

Risks assessment:

Statistics helps to assess and quantify risks in computer system such as cyber security and network security

Optimization:

Statistics provides technique and system, such as in resource allocation and process scheduling.

Decision making:

Statistics helps in making informed decisions in computer science, such as in resource allocation, system design and performance improvement.

Predictive modeling:

Statistics is used to build models that can predict future outcomes or behavior based on historical data, which is valuable in various computer science application.