

BIG DATA AND ITS IMPORTANCE

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Annotation: This in the article digital transformation in the process big in size The concept of Big Data , its main characteristics , technological basis , practical application , advantages and face bride problems about in detail information Big Data is today's on the day economy , health conservation , education , industry , social networks such as in the fields important place This is article big information with worker professionals , students and IT industry with interested parties for important manual task will do .

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Information technologies sharp development , internet, mobile devices , social networks , IoT (Internet of Things) and other digital sources through being created information size sharp is increasing . Every day in activity humanity in front of many digital traces leaves : shopping , navigation , health about information , social activities and This information not only big in size , maybe various in forms , high at speed and various in accuracy Such information will be simple methods with analysis to do possible no , that's it because Big Data technologies to the surface arrived .

Home part

1. What is Big Data ?

Big Data is size very large , structured and unstructured information They are complex . again performance , analysis to do and from it useful information to take traditional information base systems using difficult Big Data technologies such information on effective work opportunity gives .

2. Big Data main Features : "5V model "

- Volume
- Velocity
- Variety (Various forms)
- Veracity
- Value

3. Big Data technologies and platforms

- Hadoop, Spark, MongoDB, Cassandra, AWS, Google Cloud, Power BI and others

4. Big Data architecture

- Information collection , storage , recycling performance , analysis and visualization stages

5. Big Data Specializations

- Data Analyst, Data Scientist, Data Engineer, ML Engineer

6. Application sectors

- Health storage , banking, marketing, industry , agriculture agriculture , transport

7. Advantages

- Fast decision acceptance to do , automation , competitiveness

8. Problems

- Privacy , security , infrastructure expenses , specialist shortage

9. Big Data and AI integration

- AI's effective performance Big Data is needed for

10. Future prospects

- Quantum computing, DaaS, automated data engineering

Conclusion

Big Data technologies digital of the economy basis is , data over effective management provides . Large- scale from data benefit to take not only companies , maybe whole society for new opportunities creates them . right management , analysis to do and protection to do modern technological of progress is the key .

Used literature

1. "Big Data Fundamentals" - Thomas Earle
2. Apache Hadoop & Spark official documents
3. IBM Big Data Analytics whitepaper
4. Microsoft Azure Big Data Documentation
5. Google BigQuery references
6. Coursera – Big Data Specialization
7. DataCamp – Data Science and Analytics courses
8. O'Reilly Media – Data Engineering Books
9. Stack Overflow and GitHub – open source projects
10. Kaggle – a real project and analyses