

REFERENCES

- Banda, M., and Ngassam, E. (2017). A data management and analytic model for business intelligence applications. *2017 IST-Africa Week Conference (IST-Africa)*.
- Mollova, S., Georgieva, P., and Kostadinov, A. (2018). Fault-tolerance of a Laboratory Computer Cluster. *2018 20th International Symposium on Electrical Apparatus and Technologies (SIELA)*.
- Mollova, S., Zhekov, M., Kostadinov, A. and Georgieva, P. (2018). Laboratory model for research on computer cluster systems. 2018 41st International Convention on Information and Communication Technology, Electronics and Microelectronics (MIPRO).
- Sultana, Z. (2012). Analysis and Implementation of Cluster Computing Using Linux Operating System. *IOSR Journal of Computer Engineering*, 2(3), pp.06-11.
- Khatabi, A.D., Satrya, G.B., Herutomo, A. (2014). Analisa Kinerja Capacity Scheduling Algorithm pada Sitem Job scheduling *Hadoop*. Bandung: Fakultas Informatika, Universitas Telkom.
- Saouabi, M. and Ezzati, A. (2017). A comparative between *hadoop MapReduce* and *Apache Spark* on HDFS. *Proceedings of the 1st International Conference on Internet of Things and Machine Learning - IML '17*.
- Gopalani, S. and Arora, R. (2015). Comparing *Apache Spark* and Map Reduce with Performance Analysis using *K-Means*. *Internatiodnal Journal of Computer Applications*, 113(1), pp.8-11.
- Jianchao, T., Shuqiang, Y., Chaoqiang, H. and Zhou, Y. (2016). Design and Implementation of Scheduling Pool Scheduling Algorithm Based on Reuse of Jobs in *Spark*. *2016 IEEE First International Conference on Data Science in Cyberspace (DSC)*.
- Chen, H. and Wang, F. (2015). *Spark* on entropy: A reliable & efficient scheduler for low-latency parallel jobs in heterogeneous cloud. *2015 IEEE 40th Local Computer Networks Conference Workshops (LCN Workshops)*.
- Matthews, R. (1997). The Science of Murphy's Law. *Scientific American*, 276(4), pp.88-91.
- Hadjar, K. and Jedidi, A. (2019). A New Approach for Scheduling Tasks and/or Jobs in *Big Data* Cluster. *2019 4th MEC International Conference on Big Data and Smart City (ICBDSC)*.
- Samadi, Y., Zbakh, M. and Tadonki, C. (2016). Comparative study between *Hadoop* and *Spark* based on *HiBench* benchmarks. *2016 2nd International Conference on Cloud Computing Technologies and Applications (CloudTech)*.
- Cheng, D., Zhou, X., Lama, P., Wu, J. and Jiang, C. (2017). Cross-Platform Resource Scheduling for *Spark* and *MapReduce* on *YARN*. *IEEE Transactions on Computers*, 66(8), pp.1341-1353.

Wani, M. and Jabin, S. (2017). *Big Data: Issues, Challenges, and Techniques in Business Intelligence. Advances in Intelligent Systems and Computing*, pp.613-628.

Sas.com. (2019). *What is Big Data and why it matters*. [online] Available at: https://www.sas.com/en_id/insights/big-data/what-is-big-data.html [Accessed 21 Oct. 2019].

Spark. Apache.org. (2019). *Apache Spark TM - Unified Analytics Engine for Big Data*. [online] Available at: <http://Spark.Apache.org/>. [Accessed 1 Jun. 2019].

Buyya, R. (1999). *High performance cluster computing*. Upper Saddle River, N.J.: Prentice Hall PTR.

Yeo, C., Buyya, R., Pourreza, H., Eskicioglu, R., Graham, P. and Sommers, F. (n.d.). Cluster Computing: High-Performance, High-Availability, and High-Throughput Processing on a Network of Computers. *Handbook of Nature-Inspired and Innovative Computing*, pp.521-551.

Pavković, N., Skala, T. and Vidić, V. (2013). Automatic Enlarge and Deployment of Computer Cluster Using Dual-Boot Approach. *Automatika*, 54(2), pp.242-251.

Paquette, D. (2019). *Best Practice: Always 3 Nodes Minimum in a Cluster | Scale Computing*. [online] Scale Computing. Available at: <https://www.scalecomputing.com/blog/best-practice-always-3-nodes-minimum-in-a-cluster> [Accessed 26 Oct. 2019].

Mercier, M., Glesser, D., Georgiou, Y. and Richard, O. (2017). *Big Data and HPC collocation: Using HPC idle resources for Big Data analytics. 2017 IEEE International Conference on Big Data (Big Data)*.

Vugt, S. (2014). *Pro Linux High Availability Clustering*. 1st ed. Berkeley, CA: Apress.

Moniruzzaman, A., Waliullah, M. and Rahman, M. (2015). A High Availability Clusters Model Combined with Load Balancing and Shared Storage Technologies for Web Servers. *International Journal of Grid and Distributed Computing*, 8(1), pp.109-120.

Utrera, G., Corbalan, J., and Labarta, J. (2014). Scheduling parallel jobs on multicore clusters using CPU oversubscription. *The Journal of Supercomputing*, 68(3), pp.1113-1140.

Liu, J., Ding, N., and Xu, J. (2010). The Research of the Double Master/Slave System Architecture in the MPI Parallel Environment. *2010 International Conference on Electrical and Control Engineering*.

Talwani, S. and Chana, I. (2017). Fault tolerance techniques for scientific applications in cloud. *2017 2nd International Conference on Telecommunication and Networks (TEL-NET)*.

Almasi, G., and Gottlieb, A. (1989). *Highly parallel computing*. Redwood City: Benjamin Cummings.

Patterson, D. (2013). *Computer organization and design*. San Francisco: Elsevier Science & Technology.

Flynn, M. (1972). Some Computer Organizations and Their Effectiveness. *IEEE Transactions on Computers*, C-21(9), pp.948-960.

K Kazemi, U. (2017). Clustering methods in *Big Data*. *Journal of Embedded Systems and Processing*, 2(3), pp.1-5.

Amazon Web Services, Inc. (2019). What is *Apache Spark*? | Introduction to *Apache Spark* and Analytics | AWS. [online] Available at: <https://aws.amazon.com/big-data/what-is-spark/> [Accessed 22 Sep. 2019].

Sharma, M., Chauhan, S. and Kishore, K. (2016). A review: Map reduce and *Spark* for *Big Data* analytics. *International Journal of Advanced Technology in Engineering and Science*, 4(6), pp.42-50.

Gautam, J., Prajapati, H., Dabhi, V. and Chaudhary, S. (2015). A survey on job scheduling algorithms in *Big Data* processing. *2015 IEEE International Conference on Electrical, Computer*

, and Communication Technologies (ICECCT).

Usama, M., Liu, M. and Chen, M. (2017). Job schedulers for *Big Data* processing in *Hadoop* environment: testing real-life schedulers using benchmark programs. *Digital Communications and Networks*, 3(4), pp.260-273.

White, T. (2015). "*Hadoop: The Definitive Guide, 4th Edition*". 4th ed. O'Reilly Media, Inc.

Gavali, V., Mane, T. Jumna, G., and M, S. (2018). A *Big Data*: Tools, System,s and Benchmarks. *2018 International Conference on Information, Communication, Engineering, and Technology (ICICET)*.

Ahn, H., Kim, H., and You, W. (2018). Performance Study of *Spark* on *YARN* Cluster Using *HiBench*. *2018 IEEE International Conference on Consumer Electronics - Asia (ICCE-Asia)*.

Kay, J. and Lauder, P. (1988). A fair share scheduler. *Communications of the ACM*, 31(1), pp.44-55.

Jain, R., Chiu, D., and Hawe, W. (1984). A quantitative measure of fairness and discrimination for resource allocation in shared computer system. Hudson, Mass.: Eastern Research Laboratory, Digital Equipment Corp.

Schmidt, J., And Osebold, R. (2017). Environmental management systems as a driver for sustainability: state of implementation, benefits, and barriers in german construction companies. *Journal of Civil Engineering and Management*, 23(1), Pp.150-162.