**论文阅读**

阅读大量经典论文是深入学习一个领域的好途径。本部分给出作者根据每个章节内容总结出的相关领域经典论文，方便大家进一步深入的学习。

**预备知识**

1. S. Keshav, **How to Read a Paper**, ACM SIGCOMM Computer Communication Review, 2013, 37(3): 83-84.
2. Philip W. L. Fong, **Reading a Computer Science Research Paper**, ACM SIGCSE Bulletin, 2009, 41(2): 138-140.
3. 施巍松, **Foundations of Computer Systems Research**（计算机系统研究基础·英文版）, 第1章, 高等教育出版社, 2010.

**第1章 云计算概述**

1. Michael Armbrust, Armando Fox, Rean Griffith, et al., **A View of Cloud Computing**, Communications of the ACM, 2010, 53(4): 50-58.
2. M Armbrust, A Fox, R Griffith, et al., **Above the Clouds: A Berkeley View of Cloud Computing**,   
   EECS Department University of California Berkeley , 2009 , 53 (4) :50-58.
3. PM Mell, **The NIST Definition of Cloud**, National Institute of Standards & Technology, 2011, 53 (6) :50-50.

**第2章 分布式原理**

1. W. Vogels, **Eventually consistent**, Communications of the ACM, 2009, 52(1): 40-44.
2. Antony Rowstron, Peter Druschel, **Peer-to-Peer Systems, Communication of the ACM**, 2010, 53(10): 72-82.
3. R Buyya, S Venugopal, **A Gentle Introduction to Grid Computing and Technologies**, Csi Communications, 2005 , 29 (1).
4. D Thain, T Tannenbaum, M Livny, **Distributed Computing in Practice The Condor Experience**,   
   Concurrency and Computation: Practice & Experience, 2005 , 17 (2-4) :323-356.
5. JC Corbett,J Dean, M Epstein, et al., **Spanner: Google’s Globally Distributed Database**, ACM Transactions on Computer Systems, 2013 , 31 (3) :8.
6. Y Zhang, K Guo, J Ren, et al., **Transparent Computing: A Promising Network Computing Paradigm**, Computing in Science & Engineering , 2016 , 19 (1) :7-20.

**第3章 云计算架构**

1. Y Jararweh, M Al-Ayyoub, A Darabseh, et al., **Software defined cloud: Survey, system and evaluation**, Future Generation Computer Systems, 2016 , 58 (3): 56-74.
2. LA Barroso,J Dean , U Holzle ,et al., **Web Search for a Planet The Google Cluster Architecture**, IEEE Micro, 2003 , 23 (2) :22-28.
3. D Nurmi , R Wolski , C Grzegorczyk ,et al., **The Eucalyptus Open-source Cloud-computing System**, Cluster Computing and the Grid, 2009.
4. D Weerasiri , MC Barukh , B Benatallah ,et al., **A Taxonomy and Survey of Cloud Resource Orchestration Techniques**, ACM Computing Surveys, 2017, 50(2): 26.
5. Luiz André Barroso, Jimmy Clidaras, Urs Hölzle, **The Datacenter as a Computer: An Introduction to the Design of Warehouse-Scale Machines** (2nd edition), Morgan & Claypool Publishers, 2013.

**第4章 虚拟化技术**

1. M Pearce, S Zeadally, R Hunt, **Virtualization: Issues, Security Threats, and Solutions**, ACM Computing Surveys , 2013 , 45 (2): 1-39.
2. Paul Barham, Boris Dragovic, Keir Fraser, et al., **Xen and the Art of Virtualization**, ACM SIGOPS Operating Systems Review, 2003, 37(5): 164-177.
3. D.J. Scott, **Unikernels: The Rise of the Virtual Library Operating System**, Communications of the ACM, 2014, 11(11): 61-69.
4. S Hendrickson , S Sturdevant, T Harter, et al., **Serverless: Computation with OpenLambda**, USENIX Conference on Hot Topics in Cloud Computing, 2016 :33-39.
5. Z Kozhirbayev, RO Sinnott, **A performance comparison of container-based technologies for the Cloud**, Future Generation Computer Systems, 2017, 68(3): 175-182.

**第5章 分布式存储**

1. S Ghemawat, H Gobioff, ST Leung, **The Google File System**,  ACM symposium on Operating systems principles, 2003, 37(5): 29-43.
2. SA Weil, SA Brandt, EL Miller,et al., **Ceph: A Scalable, High-Performance Distributed File System**, Symposium on Operating systems design and implementation ,2006, 307-320.
3. G Decandia , D Hastorun , M Jampani , et al., **Dynamo: Amazon's Highly Available Key-value Store**, ACM SIGOPS Symposium on Operating Systems Principles, 2007 , 41 (6): 205-220.
4. B Calder, J Wang, A Ogus, et al., **Windows Azure Storage: A Highly Available Cloud Storage Service with Strong Consistency**, ACM Symposium on Operating Systems Principles, 2011: 143-157.
5. J Shafer , S Rixner , AL Cox, **The Hadoop Distributed Filesystem: Balancing Portability and Performance**, Performance Analysis of Systems & Software (ISPASS), 2010, pp122-133.
6. Y Mansouri, A Toosi, R Buyya, **Data Storage Management in Cloud Environments: Taxonomy, Survey, and Future Directions**, ACM Computing Surveys, 2017, 50(6): 1-51.
7. R Liu , R Liu, R Liu, et al., **Slacker: Fast Distribution with Lazy Docker Containers**, Usenix Conference on File and Storage Technologies, 2016, pp181-195.

**第6章 云计算网络**

1. N Mckeown, T Anderson, H Balakrishnan, et al., **OpenFlow: Enabling Innovation in Campus Networks**, ACM SIGCOMM Computer Communication Review, 2008, 38(2): 69-74.
2. F Hu, Q Hao, K Bao, **A Survey on Software-Defined Network and OpenFlow From Concept to Implementation**, Communications Surveys & Tutorials IEEE, 2014, 16(4): 2181-2206.
3. A Singh, J Ong, A Agarwal, et al., **Jupiter Rising: A Decade of Clos Topologies and Centralized Control in Google’s Datacenter Network**, ACM Conference on Special Interest Group on Data Communication, 2015, 45(4): 183-197.
4. J SON, R BUYYA, **A Taxonomy of SDN-enabled Cloud Computing**, ACM Computing Surveys, 2017: 31.
5. A Greenberg , JR Hamilton , N Jain ,et al., **VL2 A Scalable and Flexible Data Center Network**, Communications of the ACM, 2011, 54(3): 95-104.

**第7章 云计算安全与隐私**

1. Craig Gentry, **Computing arbitrary functions of encrypted data**, Communications of the ACM, 2010, 53(3): 97-105.
2. Jun Tang, Yong Cui, et al., **Ensuring Security and Privacy Preservation for Cloud Data Services**, ACM Computing Surveys, 2016, 49(1): 1-49.
3. CA Ardagna, R Asal , E Damiani, et al., **From Security to Assurance in the Cloud: A Survey**, ACM Computing Surveys, 2015, 48(1): 2.
4. S Arnautov ,B Trach , F Gregor , et al., **SCONE: Secure Linux Containers with Intel SGX**, USENIX Symposium on Operating Systems Design and Implementation, 2016.
5. A Baumann , M Peinado , G Hunt, et al., **Shielding Applications from an Untrusted Cloud with Haven**, ACM Transactions on Computer Systems, 2014, 33(3): 1-26.

**第8章 云原生应用的开发**

1. C Qu, RN Calheiros, R Buyya, **Auto-scaling Web Applications in Clouds: A Taxonomy and Survey**, ACM Computing Surveys,2017, 9(4): 39.
2. C Fehling, F Leymann, R Retter, et al., **An Architectural Pattern Language of Cloud-based Applications**, Conference on Pattern Languages of Programs, 2011: 2.
3. E. Silva, D. Lucrédio, **Software Engineering for the Cloud: a Research Roadmap**, Proceedings of 26th Brazilian Symposium on Software Engineering (SBES), 2012.

**第9章 云计算操作系统**

1. ZN Chen , K Chen , JL Jiang , et al., **Evolution of Cloud Operating System From Technology to Ecosystem**, Journal of Computer Science and Technology, 2017, 32(2): 224-241.
2. B Hindman , A Konwinski, M Zaharia , et al., **Mesos: A Platform for Fine-Grained Resource Sharing in the Data Center**, USENIX conference on Networked systems design and implementation, 2011, pp295-308.
3. V Atlidakis, J Andrus, R Geambasu, et al., **POSIX Abstractions in Modern Operating Systems: The Old, the New, and the Missing**, European Conference on Computer Systems, 2016.
4. DE Porter, S Boyd-Wickizer, J Howell, et al., **Rethinking the Library OS from the Top Down**, ACM SIGARCH Computer Architecture News, 2011, 39 (1): 291-304.
5. D Weerasiri, M C Barukh, et al., **A Taxonomy and Survey of Cloud Resource Orchestration Techniques**, ACM Computing Surveys, 2017, 50(2): [26].

**第10章 云端软件**

1. D Guo, W Wang, J Zhang, et al., **Cloudware: an emerging software paradigm for cloud computing**, Asia-pacific Symposium on Internetware, 2016, pp1-10.
2. B. Chen, H. Hsu, Y. Huang, **Bringing Desktop Applications to the Web**, IT Professional, 2016, 18(1): 34-40.
3. W Cai , R Shea , CY Huang , et al., **A Survey on Cloud Gaming: Future of Computer Games**, IEEE Access, 2017, 4: 7605-7620.

**第11章 云计算运维**

1. BH Sigelman, LA Barroso , M Burrows, et al., **Dapper: a Large-Scale Distributed Systems Tracing Infrastructure**, Google Technical Report dapper-2010-1, 2010.
2. N Laptev, S Amizadeh, I Flint, **Generic and scalable framework for automated time-series anomaly detection**, ACM SIGKDD International Conference on Knowledge Discovery and Data Mining, 2015, pp1939-1947.

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1. B Arzani, S Ciraci, BT Loo, et al., **Taking the Blame Game out of Data Centers Operations with NetPoirot**, ACM SIGCOMM Conference, 2016， pp440-453.
2. M Du , F Li , G Zheng , V Srikumar, **DeepLog: Anomaly Detection and Diagnosis from System Logs through Deep Learning**, ACM SIGSAC Conference on Computer and Communications Security, 2017, pp1285-1298.
3. R Potharaju, N Jain, C Nita-Rotaru, **Juggling the Jigsaw: Towards Automated Problem Inference from Network Trouble Tickets**, USENIX Association 10th USENIX Symposium on Networked Systems Design and Implementation (NSDI ’13), 2013, pp127-142.
4. T Chen, R Bahsoon, **Survey and Taxonomy of Self-Aware and Self-Adaptive Autoscaling Systems in the Cloud**, ACM Computing Surveys, 2019, 51(3).

**第12章 云桌面**

1. S Jaffer , P Kedia , S Bansal, **Improving Remote Desktopping through Adaptive Record/Replay**, ACM SIGPLAN/SIGOPS International Conference on Virtual Execution Environments, 2015, 50(7): 161-172.
2. SJ Yang, J Nieh, N Novik, **Measuring thin-client performance using slow-motion benchmarking**, ACM Transactions on Computer Systems, 2003, 21(1): 87-115.
3. S Shi , CH Hsu, **A Survey of Interactive Remote Rendering Systems**, ACM Computing Surveys, 2015 , 47 (4) :57.

**13软件开发云**

1. L R. Kalliosaari, O Taipale, K Smolander, **Testing in the Cloud: Exploring the Practice**, IEEE Software , 2012 , 29 (2) :46-51.
2. L. C.L. Kats, R. G. Vogelij, et al., **Software development environments on the web: a research agenda**, Proceedings of the ACM international symposium on New ideas, new paradigms, and reflections on programming and software, 2012, pp99-116.
3. S Yau, H An, **Software Engineering Meets Services and Cloud Computing**, Computer, 2011, 44(10): 47-53.

**第14章 大数据与人工智能**

1. I Stoica , D Song , RA Popa, et al., **A Berkeley View of Systems Challenges for AI**, Technical Report, https://arxiv.org/pdf/1712.05855.pdf.
2. H Zhang , G Chen , BC Ooi, et al., **In-Memory Big Data Management and Processing: A Survey**, IEEE Transactions on Knowledge and Data Engineering, 2015 , 27 (7) :1920-1948.
3. M Abadi, A Agarwal, P Barham, et al., **TensorFlow: A System for Large-Scale Machine Learning**, In Proceedings of the 12th USENIX Symposium on Operating Systems Design and Implementation, 2016, pp265-283.
4. M Zaharia, RS Xin, P Wendell, et al., **Apache Spark: A Unified Engine for Big Data Processing**, Communications of the ACM, 2016, 59 (11): 56-65.