

Papers I Love

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1 Computer Science

1.1 Algorithms

1.1.1 Analysis

1. Recursive Algorithms in Computer Science Courses: Fibonacci Numbers and Binomial Coefficients
<http://venus.cs.qc.edu/~waxman/cs211%20spring%202009/why%20is%20recursive%20fibonacci%20so%20slow.pdf>
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<http://delab.csd.auth.gr/papers/SBI02m.pdf>

1.1.2 Compression

1. Data Compression Using Long Common Strings
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1.1.3 Hash

1. SHA-1 and the Strict Avalanche Criterion
<https://arxiv.org/pdf/1609.00616.pdf>

1.1.4 Data Structures

1. Bitlist New Full-Text Index for Low Space Cost and Efficient Keyword Search
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1.1.5 Elections + Consensus

1. Elections in a Distributed Computing System
<http://academic.research.microsoft.com/Publication/716253/elections-in-a-distributed-computing-system>
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<http://research.microsoft.com/en-us/um/people/lamport/pubs/lamport-paxos.pdf>
3. In Search of an Understandable Consensus Algorithm
<https://ramcloud.atlassian.net/wiki/download/attachments/6586375/raft.pdf>

1.2 Architectures

1.2.1 Computer Architecture

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<http://www.cs.rochester.edu/u/cli/research/switch.pdf>
2. What Every Programmer Should Know About Memory
<https://people.freebsd.org/~lstewart/articles/cpumemory.pdf>

1.2.2 Multi Tenancy

1. Enabling Multi-Tenancy an Industrial Experience Report
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1. Architectural Styles and the Design of Network-Based Software Architectures
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1.2.4 SEDA

1. An Architecture for Highly Concurrent, Well-Conditioned Internet Services
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1.2.5 Servers

1. Flash an Efficient and Portable Web Server
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1.2.6 Other Architectures

1. The Monad Manifesto
<http://www.jsnover.com/Docs/MonadManifesto.pdf>

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<http://www.pitch.se/hlatutorial>

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<http://www.cs.wustl.edu/~schmidt/PDF/Act-Obj.pdf>
2. Plop Half-Sync/half-Async: An Architectural Pattern for Efficient and Well-Structured Concurrent I/o
<http://www.cs.wustl.edu/~schmidt/PDF/PLoP-95.pdf>

1.2.8 Overlay Networks

1. Architectures for an Event Notification Service Scalable to Wide-Area Networks
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1.2.9 Distributed Systems

1. Time, Clocks and the Ordering of Events in a Distributed System
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1.2.10 Process Algebra

1. A Brief History of Process Algebra
<http://alexandria.tue.nl/extra1/wskrap/publichtml/200402.pdf>

2. Some of My Favourite Results in Classic Process Algebra (Version of September 9, 2003)
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1.2.11 Event Based Architecture

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<http://academic.research.microsoft.com/Publication/7217/fast-forwarding-for-content-based-networking>
<http://www.inf.usi.ch/carzaniga/papers/cucs-922-01-r1.pdf>
3. Real-Time Modelling of Dds for Event-Driven Applications
<http://www.ctr.unican.es/publications/hpt-jjg-2012a.pdf>

1.2.12 Resiliency

1. Adaptive Overload Control for Busy Internet Servers
<http://academic.research.microsoft.com/Publication/634136/adaptive-overload-control-for-busy-internet-servers>
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1.3 Programming Paradigms

1.3.1 Process Theory

1. A Brief History of Process Algebra
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1.3.2 Object Oriented

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4. A Laboratory for Teaching Object-Oriented Thinking
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1.3.3 Double Dispatch

1. Design and evaluation of C++ open multi-methods
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4. Data Cube: A Relational Aggregation Operator Generalizing Group-By, Cross-Tab, and Sub-Totals
<http://research.microsoft.com/pubs/69578/tr-95-22.pdf>
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12. Solving Big Data Challenges for Enterprise Application Performance Management
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1. A Generic Architecture for Fusion-Based Intrusion Detection Systems
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2 Mathematics

2.1 Real Analysis

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3 Economy

3.1 Political Economy

3.1.1 Taxes

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