Papers I Love

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1	Computer Science	
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	 Data Compression Using Long Common Strings http://www.cs.brandeis.edu/~dilant/cs175/%5BSiying-Dong%5D.pdf 	
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1.2.1 Computer Architecture

- Quantifying the Cost of Context Switch 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 http://swerl.tudelft.nl/twiki/pub/Main/TechnicalReports/TUD-SERG-2010-030.pdf
- 2. Multi-Tenant Saas Applications: Maintenance Dream or Nightmare http://swerl.tudelft.nl/twiki/pub/Main/TechnicalReports/TUD-SERG-2010-031.pdf
- 3. Towards an Elastic and Autonomic Multitenant Database http://research.microsoft.com/en-us/um/people/srikanth/netdb11/netdb11papers/netdb11-final8.pdf

1.2.3 REST

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http://academic.research.microsoft.com/Publication/1309313/architectural-styles-and-the-design-of-network-based-software-architectures http://www.ics.uci.edu/~fielding/pubs/dissertation/top.htm

1.2.4 SEDA

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

http://academic.research.microsoft.com/Publication/112151/seda-an-architecture-for-well-conditioned-scalable-internet-services

http://www.eecs.harvard.edu/~mdw/papers/mdw-phdthesis.pdf

1.2.5 Servers

 Flash an Efficient and Portable Web Server https://www.usenix.org/event/usenix99/full_papers/pai/pai.pdf

1.2.6 Other Architectures

 The Monad Manifesto http://www.jsnover.com/Docs/MonadManifesto.pdf 2. The Hla Tutorial http://www.pitch.se/hlatutorial

1.2.7 Patterns

1. Active Object: An Object Behavioral Pattern for Concurrent Programming

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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

http://academic.research.microsoft.com/Publication/314658/architectures-for-an-event-notification-service-scalable-to-wide-area-networks http://www.inf.usi.ch/carzaniga/papers/phd_thesis.pdf

1.2.9 Distributed Systems

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- 3. Your Coffee Shop Doesnt Use Two-Phase Commit http://www.enterpriseintegrationpatterns.com/docs/IEEE_Software_Design_2PC.pdf
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1.2.10 Process Algebra

 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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3. Reactive Systems: Modelling, Specication and Verication
https://www.semanticscholar.org/paper/Reactive-Systems-Modelling-Specification-and-Ace
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1.2.11 Event Based Architecture

- Design of a Scalable Event Notification Service Interface and Architecture http://academic.research.microsoft.com/Publication/312680/design-of-a-scalableevent-notification-service-interface-and-architecture http://www.inf.usi.ch/carzaniga/papers/CU-CS-863-98.pdf
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- 3. Real-Time Modelling of Dds for Event-Driven Applications http://www.ctr.unican.es/publications/hpt-jjg-2012a.pdf

1.2.12 Resiliency

 Adaptive Overload Control for Busy Internet Servers http://academic.research.microsoft.com/Publication/634136/adaptive-overload-control-for-busy-internet-servers http://www.eecs.harvard.edu/~mdw/papers/control-usits03.pdf

1.3 Programming Paradigms

1.3.1 Process Theory

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

1.3.2 Object Oriented

1. A Theory of Objects

http://academic.research.microsoft.com/Publication/1354440/a-theory-of-objects http://lucacardelli.name/Talks/1997-06%20A%20Theory%20of%200bject% 20(ECOOP%20Tutorial).pdf

2. Traits: Composable Units of Behaviour http://scg.unibe.ch/archive/papers/Scha03aTraits.pdf

- 3. Applying Traits to the Smalltalk Collection Hierarchy http://www.researchgate.net/publication/2564879_Applying_Traits_ to_the_Smalltalk_Collection_Hierarchy
- 4. A Laboratory for Teaching Object-Oriented Thinking http://www.inf.ed.ac.uk/teaching/courses/seoc/2007_2008/resources/CRC_00thinking.pdf

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 Design Patterns for Generic Programming in C++ https://www.lrde.epita.fr/dload/papers/coots01.htmls

1.3.4 Dynamic Dispatch

 Design and evaluation of C++ open multi-methods https://parasol.tamu.edu/~yuriys/papers/OMM10.pdf

1.4 Database

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- Dynamo: Amazons Highly Available Key-Value Store http://s3.amazonaws.com/AllThingsDistributed/sosp/amazon-dynamo-sosp2007. pdf
- 12. Solving Big Data Challenges for Enterprise Application Performance Management http://vldb.org/pvldb/vol5/p1724_tilmannrabl_vldb2012.pdf

1.5 Data Fusion

1. A Generic Architecture for Fusion-Based Intrusion Detection Systems https://rcdeboer.home.xs4all.nl/rcdb_thesis.pdf

2 Mathematics

2.1 Real Analysis

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2.2 Statistics

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- Tidy Data http://vita.had.co.nz/papers/tidy-data.pdf
- A Tutorial on Principal Component Analysis Derivation, Discussion and Singular Value Decomposition https://www.cs.princeton.edu/picasso/mats/PCA-Tutorial-Intuition_ jp.pdf
- 4. An introduction to ROC analysis https://ccrma.stanford.edu/workshops/mir2009/references/ROCintro.pdf

2.3 Forecast

 Forecasting Global Climate Change https://faculty.wharton.upenn.edu/wp-content/uploads/2015/02/ GlobalClimateChange-FWP-(2)_2.pdf

3 Economy

3.1 Political Economy

3.1.1 Taxes

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- 2. Dynamic Revenue Estimation https://ideas.repec.org/a/aea/jecper/v10y1996i1p141-57.html
- 3. Dynamic Scoring an Introduction to the Issues https://www.aeaweb.org/annual_mtg_papers/2005/0107_1430_1304.pdf