Contents

1 Verification and Checking

- *Verdi: A Framework for Implementing and Formally Verifying Distributed Systems* [12]

  Verdi is a framework for practically verifying distributed systems. Often implementations of distributed systems are too complex to be exhaustively tested, so, Verdi attempts to choose an appropriate fault model to more effectively enumerate bugs and faults.

- *Teaching Rigorous Distributed Systems with Efficient Model Checking* [8]

  While exhaustively determining bugs in a distributed system can be incredibly effective, it can, at the same time, be incredibly costly for developers. This paper purposes a model that allows students, or developers with fewer resources at their disposal to efficiently verify their systems and visually debug them. Also included, are methods to reduce the search space for potential faults in the system and to detect errors in realtime.

- A Generalised Solution to Distributed Consensus [2]

2 Consensus

- SDPaxos: Building Efficient Semi-Decentralized Geo-replicated State Machines [13]

- Mencius: building efficient replicated state machines for WANs [7]

- Fast Paxos [5]

- Generalized Consensus and Paxos [4]

- MDCC: Multi-Data Center Consistency [3]

- On the correctness of Egalitarian Paxos [10]

- There Is More Consensus in Egalitarian Paxos [9]

- The FuzzyLog: A Partially Ordered Shared Log [6]

3   Databases and Implementations

- Spanner: Google's Globally-Distributed Database [1]

- Calvin: fast distributed transactions for partitioned database systems [11]

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