

DIEGO ONGARO

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Education

Stanford University—Stanford, CA

Doctor of Philosophy in Computer Science: 2009–2014

Master of Science in Computer Science: 2009–2012

- Dissertation project: the Raft consensus algorithm
- Advisor: John Ousterhout

Rice University—Houston, TX

Bachelor of Arts in Computer Science: 2006–2009

Work Experience

Atomix Data, Inc—Seattle, WA (remote)

Founder, Engineer: May 2025–present

- Stealth database startup.

A Log Would Help, LLC—Seattle, WA

Founder: December 2024–April 2025

- Software development and consulting.

Juicebox Systems, Inc—Seattle, WA (remote)

Founding Engineer: December 2022–January 2024

- Developed a secure, scalable, fault-tolerant service combining specialized hardware and cloud computing.
- Worked in areas of distributed systems, security, cryptography, embedded systems.

HomeX—San Francisco, CA (remote)

Principal Engineer: May 2019–October 2020

- Developed dispatch board that optimized technician assignment and routing.

eBay—San Francisco, CA

Architect, Structured Data: August 2017–April 2019

- Designed and implemented fault-tolerant knowledge graph store, which scales out in its capacity and query rates and uses a logically central log to simplify coordination.
- Implemented a cost-based query optimizer for SPARQL-like queries, a transaction mechanism, etc.

Salesforce—San Francisco, CA

Lead Software Engineer, Compute Infrastructure: July 2015–August 2017

- Developed prototype of an Apache ZooKeeper-compatible coordination system called Ark, using the HashiCorp Raft library.

- Helped design a cache with complex concurrency requirements for an internal LSM-based database, resulting in a software patent. Applied Runway to create a specification and verify its correctness.
- Designed and implemented Runway, a tool for distributed systems design. It enables interactive visualization, specification, simulation, and model checking.
- Developed prototype for transparent encryption of datacenter networking, including benchmarking of various approaches. Obtained higher throughput than TLS for a single connection using parallel encryption of larger blocks.

Scale Computing—San Francisco, CA

Software Engineer Contractor: November 2014–July 2015

- Prepared LogCabin for production use. Fixed several important bugs. Made LogCabin easier to operate and issues easier to diagnose. Implemented rolling upgrades.

Facebook—Palo Alto, CA

Software Engineer Intern: Summer 2011

Citrix Systems R&D (XenSource)—Cambridge, UK

Software Engineer Intern: Summer 2008

Essential Technology Solutions, LLC—The Woodlands, TX

Developer: 2004–2008

Selected Publications

J. Ousterhout, A. Gopalan, A. Gupta, A. Kejriwal, C. Lee, B. Montazeri, D. Ongaro, S. J. Park, H. Qin, M. Rosenblum, S. M. Rumble, R. Stutsman, and S. Yang. The RAMCloud Storage System. *ACM Transactions on Computer Systems (TOCS)*, Sept. 2015.

D. Ongaro. Consensus: Bridging Theory and Practice. *Stanford University PhD Dissertation*, Aug. 2014.

D. Ongaro, J. Ousterhout. In Search of an Understandable Consensus Algorithm (Raft). *USENIX Annual Technical Conference (ATC)*, 2014. *Best Paper Award*.

D. Ongaro, S. M. Rumble, R. Stutsman, J. Ousterhout and M. Rosenblum. Fast Crash Recovery in RAMCloud. *ACM Symposium on Operating Systems Principles (SOSP)*, 2011.

J. Ousterhout, D. Ongaro, M. Rosenblum, S. M. Rumble, R. Stutsman, *et al.* The Case for RAMCloud. *Communications of the ACM (CACM)*, July 2011.

D. Ongaro, A. L. Cox, and S. Rixner. Scheduling I/O in Virtual Machine Monitors. *ACM International Conference on Virtual Execution Environments (VEE)*, 2008.