Dave Kilian

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Software engineer with experience designing and building cloud-scale storage engines in C and C++. Interested in systems topics like databases, distributed storage, file systems, multithreading, and operating systems. Skilled technical writer and in-person presenter with a knack for explaining difficult technical concepts. Proud dad of three little wild men. Graduated from Brown University in 2013. Lifetime learner.

Senior Member of Technical Staff, Qumulo, 2023-Present

- Working on next-generation cloud file storage

Student Teacher, 2021-2022

- Completed a 1-year degree program and earned a high school teaching certificate.
- Licensed to teach high-school mathematics and computer science in Washington state.

Principal Software Engineer, Azure Storage, Microsoft, 2017-2021

- Identified a path for scaling Azure's distributed disk storage system, got funded, designed it and built it. We scaled the existing architecture 10x, pushing over 1M IOPS per server blade with latency near hardware limits.
- Built key pieces of the org's onboarding process. If you join Azure Storage today, you'll be asked early on to follow the getting started instructions I wrote and watch a recording of a tech talk I wrote and presented.
- Worked on a handful of projects moving systems from legacy TCP protocols to InfiniBand RDMA.

Software Engineer II, Windows Deployment, Microsoft, 2013-2017

- Dramatically improved stability and reliability of the Windows 'Reset this PC' recovery feature.
- Traveled overseas to work with PC manufactuers on customizing recovery for their devices

Teaching Assistant, 2010-2013

- Assisted graduate- and undergraduate-level courses in graphics, operating systems, and cybersecurity
- As regular TA, developed course materials, graded assignments, ran coding labs and held office hours
- As head TA, hired and managed teams of undergrad TAs, organized courses, developed course content

Undergraduate Student, Brown University, 2009-2013

- Graduated with an Sc.B. in Computer Science in 2013
- Key courses: Operating Systems (with Implementationn Lab), Computer Networks, Multiprocessor Synchronization, Computer Systems Security, Interactive Computer Graphics (a graduate-level course), 3D Game Engines, Design and Analysis of Algorithms

Patents

- US 9,519,631: Semantic Diff and Automerge, based on work I did during a 2011 internship at Microsoft