

Deeply technical software engineer with hands-on experience designing and building cloud-scale storage engines in C and C++. Track record of carrying ambitious projects from inception to delivery with attention to quality and performance. Interested in systems topics like distributed storage, databases, file systems, operating systems and multithreading. Skilled technical writer with a knack for making difficult topics easy to understand. Proud dad of three little wild men. Graduated from Brown University in 2013. Lifetime learner.

#### **Senior Member of Technical Staff**

Qumulo (2023-Present)

#### Student Teacher

Northwest University • Lake Washington School District (2021-2022)

• Completed a 1-year degree program and earned a license to teach high school math and computer science.

# **Principal Software Engineer**

Microsoft • Azure Storage Performance (2017-2021)

- Spearheaded project to plot a potential path for continuing to scale Azure's distributed disk storage system over the next decade. Pitched project, got funded, made a design and built it.
- Achieved over 20x scalability improvement beyond current limits, pushing over 1 million IOPS per server blade with microseconds of latency overhead in software, all on existing system architecture.
- Wrote the 'getting started' instructions and recorded the 'boot camp' tech talk which the org still uses for onboarding engineers. Flew out to China and India offices to give this talk by request.
- Delivered on a handful of projects replacing legacy TCP protocols with InfiniBand RDMA in user mode and kernel mode software components.
- Conducted dozens of interviews and mentored several interns and new hires.

### **Software Engineer II**

Microsoft • Windows Deployment (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

## **Undergrad**

Brown University (2009-2013)

- Graduated with an Sc.B. in Computer Science in 2013, and served as a TA for 6 courses over 5 semensters.
- Interned at Microsoft on the Visual Studio Ultimate (2011) and Windows Licensing (2012) teams.

### **Odds and Ends**

- My blog (https://www.davekilian.com/) has been featured on the front page of Hacker News
- I have a patent (US 9,519,631), based on work I did in 2011 as an intern at Microsoft.