

Resume

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- Resume: <https://mechanicker.github.io/resume.html>
- LinkedIn profile: <https://www.linkedin.com/in/dhruvakm/>

Objective

Results-oriented data engineering leader with 20+ years of experience. Aiming to apply innovative problem-solving skills to architect and implement robust and optimized data solutions, and drive business value.

Skills

- Distributed systems, cloud-native data-intensive microservices
- Systems programming, file systems, and storage technologies. Performance optimization, developing and using profilers, multithreading and asynchronous programming.
- Source control management (SCM/VCS) focussing on [git](#) & [libgit2](#) internals
- C, C++, Go, Python and Java

Experience

[Atlassian](#), 2017 - Present, Principal Engineer

[Bitbucket](#)

Drive Bitbucket storage architecture for better reliability, performance and support large monorepo workflows. Mentoring engineers in their technical career progression.

- S3 storage backend for git repositories
- git bundle server reducing latency by ~5x and eliminated network transit costs using pre-signed AWS S3 direct link
- Architected live migrations of multi-peta byte repository storage saving approximately \$2.5 million per year
- Custom git object cache using `memcached`
- Maintainer of git and libgit2 fork support NFS and S3 storage backends

Cross product search

Implemented various aspects of multi-region cross-product search and indexing components, honoring customer-defined role-based access controls.

Trust & Identity

Designed and implemented unified distributed role-based access control (RBAC) service for seamless user experience across Atlassian services.

[NetApp](#), 2008 - 2017, Senior Engineer

NFSv4 server performance lead

Led NFSv4 performance improvement initiatives and delivered ~40% performance reduction in IO latency and ~50% throughput improvements implementing [IOtrap library](#) for ASYNC IO workloads. Improved NFSv4 locking performance.

Scale out NAS storage

Key contributor to the architecture of distributed scale-out NAS storage Infinite Volume. Designed and implemented user defined metadata, object versioning and object search based on [CDMI](#) protocol.

[McAfee](#), 2006 - 2008, Technical Specialist

Established performance engineering initiative and built a team of 4 engineers to optimize AV scan performance. Implemented custom memory allocator to reduce lock contentions in multi-threaded Win32 service, resulting in ~25% increase in scan rate. Evaluated and benchmarked custom allocators from MicroQuill and Hoard

[Hewlett Packard](#), 2006 - 2007, Technical Specialist

Technical lead CIFS file server on the [VMS](#) operating system, led cross team initiatives porting [Samba](#). Implemented missing core POSIX APIs emulation on VMS required for the porting efforts along with porting `cvs` for streamlining maintaining VMS fork of Samba.

[Bosch](#), 2004 - 2005, Engineering Manager

Led cross-site teams developing a navigation point-of-interest data compiler chain for Blaupunkt car navigation systems. Delivered resiliency improvements and cost optimizations to multi-stage navigation data compiler suite.

[Delmia \(Dassault Systemes\)](#), 1998 - 2004, Technical Lead

Team lead for integrating PLM solution `Process Engineer` and CATIA. Developed core features of 3D simulation-based robotics and factory floor simulation software in C++ and cross-platform CATIA CAA V5 architecture.

[Wipro Fluid Power](#), 1996 - 1998, Production Engineer

Implemented and maintained CNC path simulator and inventory tracking system.

Awards and recognition

[Patent](#) 10812313 (granted)

[A federated namespace of heterogeneous storage system namespaces](#)

Abstract

The patent covers a system and computer-based method for performing a data transaction in a network storage system by offering a federated file system namespace with a [POSIX](#)-compliant file system interface to access data stored across distributed decoupled heterogeneous storage entities along with policy-based data lifecycle management leveraging different storage tiers.

<https://patents.justia.com/patent/10812313>

Education

Bachelor of Engineering, Mechanical, 1992 - 1996

[National Institute of Engineering,](#)

University of Mysore, Karnataka, India