

Contact

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Top Skills

Storage

Linux

SaaS

Honors-Awards

Grumman Aerospace Scholar

CJ Herman

Boulder, CO

Summary

20+ years of hands-on expertise leading the design and implementation of highly available HW/SW products for large, Internet-facing environments (billions of hits, 1000's of servers, 1000's of Terabytes). Significant success in assembling, mentoring and retaining high-performance engineering and operations teams.

Experience

University of Colorado Boulder College of Engineering & Applied Science

Assistant Teaching Professor - Computer Science

June 2016 - Present (5 years 8 months)

Boulder, CO

Subjects taught include:

CSCI 5113 - Linux Systems Administration

CSCI 4273 - Network Systems

CSCI 3753 - Operating Systems

CSCI 3287 - Database Systems

vivoo inc.

Co-Founder & CTO

May 2016 - April 2019 (3 years)

Boulder, CO

Mobile app startup developing multi-media collaboration, documentation, and training tools for field service personnel. React Native, AWS Lambda, Cognito, API GW, CouchDB, Node.js

Cloudstrate

Technical Co-Founder

May 2013 - May 2016 (3 years 1 month)

Boulder, CO

Overall responsibility for the definition, design and implementation of Cloudstrate's "Cloud-in-a-Box" on-premise service delivery platform.

Evangelized Cloudstrate's vision for Infrastructure as a Service, Internet of Things and Remote Virtualized IT services to investors, partners and customers.

Produced market, competitor & product positioning analyses, revenue & margin projections, CAPEX/OPEX models and strategic growth plans.

Presilient

CTO / VP of Product Development / Director of Software Development
February 2004 - December 2012 (8 years 11 months)

Broomfield, CO

Responsible for the growth and enhancement of Presilient's IaaS, Managed Backup, Storage Appliance and Remote Monitoring product portfolio through the identification and development of new technologies.

Formulated and developed segment specific offerings for new and existing verticals based on feedback from the sales organization as well as direct consultations with customers and partners.

Accelerated the release of new products and features by utilizing Rapid Prototypes, Iterative Development Methodologies, Service Oriented Architectures, Cloud Platforms, Opensource Software and Commodity Hardware.

Drove product conception, definition, roadmap, design, implementation and delivery platform buildout. Recruited and managed the software development, network & systems engineering teams.

Successfully developed the OSS software suite for 24/7 storage operations center with over 2 Petabytes under management. Modeled customer, partner and vendor process flows and implemented email driven applications including trouble ticketing, failure notification and contract entitlement.

Enabled growth from 60,000 to 200,000 backup & recovery jobs per month with only marginal increases in ops staff workload.

Me.dium / OneRiot

Analytics Architect / SW Engineer

June 2007 - November 2008 (1 year 6 months)

Boulder, CO

Designed and built an event logging and clickstream analysis system for social networking startup. Deployed a highly scalable data collection and MySQL warehousing infrastructure that captured 100 million interactions from 35,000 unique visitors per day.

Designed database schemas, partitioning logic and fault tolerant ingestion mechanisms. Formulated SQL and ETL logic for mining user behavior, key service metrics, marketing campaign response rates, user experience and backend server performance.

Sun Microsystems

Systems & Network Architect

January 2002 - December 2003 (2 years)

Broomfield, CO

Architected the operational infrastructure and wide area network for Sun's remote monitoring service (SRS), scaling to 250,000 monitored hosts across six continents. Minimized the impact of scheduled and unscheduled downtime through the use of diverse telecomm provider connectivity, paired system/network elements, automated failover and dynamic routing.

Led Sun's eCommerce platform consolidation through the creation of a virtual hosting environment. Authored kernel modules, pseudo-device drivers and a system call interposition layer that enforced separation between multiple userland environments used for OS virtualization and application stacking.

Relera, Inc.

Director, Systems and Network Engineering

December 2000 - December 2001 (1 year 1 month)

Denver, CO

Developed colocation, web hosting, media distribution and streaming video product offerings. Integrated streaming backend with multicast, layer 4-7 switching, content storage and bandwidth shaping.

Identified and resolved issues such as QOS, IP address architecture, transit & peering arrangements and the translation/incorporation of system logs into billable usage records.

Supported the company's sales and business development efforts by participating in client visits, road shows and industry events where significant engineering and operational expertise was required.

Level 3 Communications

Senior Manager, Hosting & IP Services, Unix Architecture, Network Facing Systems

May 1998 - September 2000 (2 years 5 months)

Broomfield, CO

Designed and implemented Level 3's Web Hosting and IP Co-location product offerings. Deployed network infrastructure, including bandwidth aggregation, monitoring & telemetry, SMTP Email Relay, DNS, and Radius across an initial fifteen data center facilities. Implemented Bandwidth Management and Metered Billing for the dedicated access and co-location products.

Supported a number of crucial initiatives by developing the technical strategies for Multicast, Caching, Streaming Content Distribution and Geographic Load Balancing. Analyzed cost, functionality and performance of several competing router and switch platforms.

Drove standardization efforts and realized support savings of over one million dollars per annum by organizing Level 3's data center services into a utility model. This environment successfully decoupled application and infrastructure lifecycles, eliminated underutilized assets, consolidated development, test and production hardware and cut physical footprint in half.

Ball Aerospace / Ball Corporate Telecom

Internet Security Engineer

April 1996 - May 1998 (2 years 2 months)

Boulder, CO

Designed host and network security infrastructure for 60-site WAN with multiple paths to the Internet. Implemented commercial, public domain and locally developed firewall / IDS software arrayed across geographically distributed bastion hosts and perimeter networks.

Provided DMZ, content filtering, web caching, forward & reverse proxying, SMTP and HTTP services. Led forensic investigations into attacks against corporate resources both internally and externally.

NOAA - Climate Diagnostics Center

Software Engineer / Sysadmin

April 1993 - April 1996 (3 years 1 month)

Boulder, CO

Authored graphical toolkit for the display and manipulation of time-series data for scientific research

Coded FIR & IIR digital filters including Butterworth, Chebyshev, and Elliptic.

Performed pre-purchase evaluation and qualification of hardware, software and networking products for one of the first Internet accessible historical climate data stores.

System & Network Tuning: tweaked RAID stripe-widths, TCP/IP MSS's/MTU's, window/buffer sizes, UFS/NFS and database transactions, processor scheduling and memory interleave/allocation algorithms in order to obtain optimum performance and maximum utilization of computing assets.

Kentek Information Systems

Embedded Software Engineer

October 1989 - April 1993 (3 years 7 months)

Boulder, CO

Engineered, from design to manufacture, a number of digital electronic products, including:

Graphics rasterization and image processing platforms, video scan rate converters, print head and servomotor controllers, SCSI & Ethernet adapters and other high-speed serial & parallel interfaces.

Specified, designed and coded CAE software used for integrated circuit design. Built design rule checkers for the pre-production verification of semi-custom and full-custom ASIC designs. Analysis of fan-in/fan-out, setup & hold, power dissipation and testability.

Education

Stony Brook University

B.S., Computer Science / Electrical Engineering

Columbia University in the City of New York

Science Honors Program