Jeff Barnes

Software Engineer

Personal

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Linked-In

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Skills

Programming Languages

TypeScript, JavaScript, C, C++, Java, HTML, CSS, Python, Perl, Swift, Ruby, Assembly, SQL, Rust

Platforms

Docker, Linux, Windows, VmWare, Mac OS X, AIX, Solaris, HP-UX, UNIX

Networking

Distributed Systems, TCP/IP, SAN, Fibre Channel, SCSI

Databases

MongoDb, CouchDb, SQL Server, MySQL, PostgreSQL, IndexedDb

Misc

Git, SVN, PowerPC, Multithreading, Parallel Computing, Database Design, High Availability

Software engineer with 20+ years professional software development experience. Lifelong passion for learning new technologies with experience in a breadth of software languages and frameworks. Demonstrated ability to work in large teams and individually.

Experience

Software Engineer, GCI

Engineering & Architecture, Automation & Optimization
Anchorage, AK — 2019 - Present

- Maintain internally developed full-stack application for Site Management, Project Management, and Site Maintenance activities. Responsible for front-end Angular web app, back end Node.js code, configuration of VMs for deployment and writing and maintaining end-to-end test suite.
- Developed software and architecture to capture and process cellular performance metrics and enable performance monitoring of a multi-vendor cellular network. (Rust, SQL)
- Enabled integration between fault monitoring and ticketing platforms. (Perl)
- Provided real-time data feed from asset management database to ticketing platform. (Typescript, SQL)
- Mentor junior developers.

Software Engineer, GCI (Elwood Staffing, Opti Staffing)

Anchorage, AK — 2015 - 2019

- Developed a business critical application for viewing networking information, managing network changes, and tracking project status.
- Using leading edge open source technologies such as Angular, MongoDB, CouchDB and Node.js to enable a responsive mobile friendly experience.
- Designed application architecture and middleware necessary to interface with legacy business products.
- Managed full application development life cycle, including development, testing, integration and deployment using modern DevOps software techniques.
- Mentor junior developers to build a functional cross-disciplinary team.

Advisory Software Engineer, IBM

Tucson, AZ / Anchorage, AK — 2007 - 2012

- Led team of 4-5 developers supporting IBM DS8000 Storage System SCSI and Fibre channel protocols.
- Developed error recovery and availability firmware for IBM XIV Storage System.
- Helped develop routines for storing compressed and encrypted data.
- Designed interoperability features for IBM DS8000 Storage System and AIX UNIX to support disaster recovery scenarios.
- Mentored and trained new team members.
- Provided project time estimates managed resource allocation.
- Traveled abroad to perform problem analysis on site at customer facilities.

Staff Software Engineer, IBM

Tucson, AZ — 2002 - 2007

- Development and release of the IBM DS8000 Storage System, focus on SCSI and Fibre Channel protocols.
- Enabled industry leading SAN environments by designing and implementing advanced metadata management algorithms.
- Designed Java based GUI client for internal source code control and defect tracking.
- Developed an Asynchronous Messaging over SCSI protocol to facilitate peer-to-peer storage mirroring.

Junior Software Engineer, IBM

Tucson, AZ — 2001 - 2002

- Developed device drivers for IBM tape backup products on Solaris and Linux platforms.

Distance Education Technician

South Dakota School of Mines and Technology
Rapid City, SD — 1998 - 2000

- Developed leading edge Internet based distance courses.
- Installed and maintained audio / video networks related to the encoding and distribution of college courses.

Research Assistant – Atmospheric Science Department

South Dakota School of Mines and Technology
Rapid City, SD — 1996 - 1998

- Programmed image processing software using C++ and IDL.
- Gained proficiency on Silicon Graphics (SGI) and SUN workstations.

Education

Walden University

Master of Science (MS), Computer Engineering — 2004 - 2007

Specialization in Computer Architecture. In depth study of CPU design, Networks, Parallel Computing, Programming Language Design, and Embedded systems.

South Dakota School of Mines and Technology

Bachelor of Science (BS), Computer Engineering — 1996 - 2001

Patents

Priority initialization system

United States 7,383,404 — Issued June 3, 2008
Barnes et al.

Method, system, and program for throttling data transfer

United States 7,194,562 — Issued March 20, 2007
Barnes et al.

Recent Open Source Projects

github.com/jefbarn/pgx_json_schema
A JSON Schema validator for Postgres implemented in Rust

github.com/jefbarn/moment-recur-ts
Date recurrence library written in Typescript.

github.com/jefbarn/Sonarr-Menu
Mac status bar utility written in Swift.

Personal

Career Break
Anchorage, AK — 2012 - 2015

Enjoyed a midlife retirement to pursue adventure sports and world travel.