Joel Bradshaw

Full-stack Software Developer

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Summary

10 yrs experience building cloud-native applications, from database design and server management up through backend and frontend development. Most recently worked on the backend of a high-throughput intelligent DNS service, managing a highly-distributed fleet of global DNS servers.

Proficiencies

Experienced in:

C++17, Javascript, Python, Puppet, BigQuery, SQL, PHP, HTML5/CSS3

Familiar with:

C, C#, Java, R, Node.js, Chef, Ansible, Perl, Bash scripting

Dabbled in/interested in:

Rust, Go, Scala, Haskell, Ruby, Piet, Z80/M8C/MIPS Assembly

Tools and Platforms:

Vim, Git, Vagrant, Docker, Datadog, LAMP stack, GNU utilities

Experience

Senior Software Engineer 2

Jul 2017 – Oct 2019

Citrix (acquired Cedexis)   Portland, OR

- Maintained cloud-native DNS platform using 9 billion daily measurements to make 3 billion daily decisions
- Led implementation of just-in-time DNSSEC in our dynamic DNS server, consulting RFCs and real-world usage
- Integrated new datastream into pipeline, working with partner vendor to identify and analyze key metrics
- Rearchitected and took ownership of connection manager that maintains tunnels between our 150+ servers
- Analyzed and provided visibility into BigQuery usage costs, immediately reducing our monthly spend by 20%
- Used perf and flamegraphs to identify and rewrite bottlenecks, e.g. reducing config read time by 30%
- Acted as liaison between teams, helping to devise solutions that accomplish everyone's goals

Founding Engineer

Sep 2009 – Mar 2017

SERPs.com   Portland, OR

- Built SaaS web analytics application from the ground up to over 400 customers and $60k MRR
- Mentored junior developer, assigning tasks, assisting with questions, and introducing to the codebase
- Developed Puppet spec to manage our infrastructure, increasing reliability and reducing deploy time 10x
- Provisioned machines from diverse providers including Linode, DigitalOcean, AWS, and colocated bare-metal
- Maintained and improved queue-worker cluster using several stages to process data from >500k daily jobs
- Managed MySQL servers and schema for a midsize database with >1m rows added per day
- Supervised migration to sharded HA database cluster using data warehousing, improving loadtime of main page >100x
- Wrote hundreds of unit tests to cover thousands of LOC with custom Jenkins continuous integration server
- Built monitoring system with TICK stack and Grafana, improving issue response time and speeding diagnosis

Key skills:

- Full-stack development
- Building distributed multi-cloud applications
- Performance-sensitive, high-throughput systems
- Administering Linux systems
- Quickly understanding large projects and systems
- Mentoring and encouraging junior coworkers
- Engaging with peers to resolve disagreements

Other Interests:

- Passionate about charts, graphs, maps, and other beautiful data
- Continued personal experience working with microcontrollers and EDA (KiCad, Eagle)
- Amateur astronomer

IT Specialist   Sep 2010 – Jun 2011
Seattle Fire Department   Seattle, WA

Summer Software/Hardware Intern   Jun 2010 – Sep 2010
Fluke Corporation   Everett, WA

Education

Bachelor of Science, Computer Science

Bachelor of Science, Electrical Engineering
Seattle Pacific University, June 2011

Volunteer Work

**Riser Coordinator,
Section Representative**   Sep 2012 – Present
Portland Gay Men's Chorus   Portland, OR

- Coordinate with storage company and production team to schedule delivery and pickup of risers for every show
- Lead crew of ~12 to construct riser system, orienting new members and delegating to trusted members
- Direct all-hands teardown for a safe and timely strike with crew of 30+ members of all experience levels
- Field questions and issues from section of ~30 members, solving or escalating to team as necessary