Résumé of Jeff Rhyason

HTML, Text

Contact

- *jeff@rosieoutlook.com*

Status

- Available full-time. Willing to relocate from Vancouver, CA for the perfect role.

Examples of work

- Indelible
- AWS
- Personal github
- Classic UNIX awesomeness

Active Skills

- Languages: Go, HTML, Java, JavaScript, Kotlin, Python, Rust
- Distributed systems: architecture, implementation and operation of scalable APIs and state-keeping systems. Implementations on:
  - AWS including EC2, Lambda, DynamoDB, Kinesis, SQS, Redshift, S3, CloudWatch and internal tools
  - GCP with Firestore
  - DigitalOcean with Kubernetes

Other Expertise

- Languages: C, C++, Java, JavaScript, Perl, PHP, Python
- Kernel Development: Mac OS X, Solaris, FreeBSD, Windows
- Debugging: Mac OS X (lldb), gdb, dtrace, Solaris mdb
- CPUs: SPARCv9, ARMv5

Software Engineering Experience

2019-2020 Technical cofounder, Indeliblle Systems, Bellevue WA

Started company to research and develop a managed, highly-available versioned datastore as a service, to drastically simplify distributed systems engineering, built around Clojure-style immutable data structures. Developed service in Kotlin to deploy with Kubernetes, and client libraries for Rust, the JVM (Kotlin), Python, and the web. We didn't catch fire like we hoped, and are taking a break to get perspective on what what people need.

2014-2019 Amazon Web Services, Vancouver BC

Software Development Engineer II, Amazon Route 53 Domains and Route 53 Cloud Map. Designed, implemented and operated several software systems on components ranging from frontends to service control planes to scalable data planes in Java, Python, Kotlin, Ruby, and proprietary systems, including software-defined infrastructure systems. I'm very proud to have authored thousands of lines that are still in production today, culminated in AWS Cloud Map.

2005-2014 El Fresko Technologies, Remote

Co-architect and lead programmer for MagnaStor, an archival filesystem for Windows, Mac OS X, Solaris and FreeBSD.

- designed for recoverability, replicatibility, auditability
- designed and implemented security infrastructure (key derivation, RSA signatures, encryption for filesystem data on disk, in transit and at rest)
- designed and implemented metadata structure for repairability and verifiability
- innovative features like data retention+destruction policies, selective encryption, on-and-offline collaboration synchronization
- experience working in a fully remote team for more than 5 years
- 2 patents pending
- written in an in-house object-oriented C derivative (co-created)
- responsible for developing filesystem driver for Windows IFS kernel, Solaris VFS module, and Mac OS X kext (FreeBSD also prototyped)
- responsible for application components in C and Java, servers and libraries on FreeBSD (licensing, administration, configuration signing and distribution)
- worked with all areas of the company to improve QA and operations
- experience with Amazon EC2, S3, Glacier and other AWS technologies
- implemented in-GUI purchasing and licensing with custom client+server and integrated with PayPal
- also provided high-level customer support, debugging all levels of the stack

2001-2005 Resource Management Group, Solaris Kernel and Data Storage Organization, Sun Microsystems, Menlo Park, CA

Primary developer of Solaris Resource Manager 1.3, particularly the patented userland-controlled physical memory resource "capping" system ("rcapd"), and coordinated releases for Solaris 8, 9 and 10. Presented SRM 1.3 to an audience of about 400 at Sun Performance Users Group ("SUPerG") conference, Berlin, 2003. Codeveloped Dynamic Resource Pools (resource partition control mechanism) for Solaris 10. Identified, filed, analyzed and fied several bugs in kernel, commands, libraries and tools, specifically w.r.t. observability (esp. monitoring and accounting). Examples of my code are available at https://github.com/illumos/illumos-gate/tree/master/usr/src/cmd/rcap/rcapd.

Education

1996-2000 BSC, Computer Science, University of Calgary.

3.2 GPA. Participated in ACM Collegiate Programming Contest team at Mountain regional finals, 2 years. Codeveloped optimizing compiler for a C-like language. Modelled FreeBSD kernel memory allocator in a discrete-event simulation to predict impact of changes to tunables. Minor in Philosophy.

References

Available upon request.

Interests

- Slow cooking
- Cycling
- Ham Radio