REED B. HASLAM
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EXPERTISE

Expertise includes software design and development of systems and applications on Linux/Unix and Windows operating systems including the following technologies:

- Java Applications and Components
- Cloud Migration – Moving large applications to cloud environments.
- Spring, including Spring Cloud
- Health Information Exchange – Developing Connect/Aurion technologies for health information exchange
- Health Technologies including HL7v2, HL7V3, and FHIR
- Use of cryptographic services to implement encryption and tamper detection.
- Soap and Rest web services including validation and load analysis (SoapUI)
- Familiarity with Subversion and Git
- Use of virtual machines for testing and development in multiple operating environments
- Adobe InDesign and Adobe Dreamweaver

DEMONSTRATED ACHIEVEMENTS

- Often the "go to guy" for solving the most difficult problems.
- Developed an auditing system for database transactions that internally provided an audit log with little to no overhead.
- Experience interfacing with the IBM Initiate, a Master Person Indexing system.
- Development of Web Services based software to support the exchange of health information in a distributed network of cooperating entities. Particular expertise includes:
  - Created of components of the Nationwide Health Information Network (NwHIN) from its earliest prototypes through current operations.
  - Dynamic document generation from data stored in Electronic Medical Records systems. Such documents are XML based rendered with XSLT.
  - Anonymization of health care records to facilitate their use in the public health or research domains.
  - Implemented Patient Location Query (PDQ) inside the NwHIN framework.
  - Developed of protocols compliant with NHIN, IHE, and HL7.
- Specifying, designing and building the efficient user interfaces for complex tasks including (a) management of security technologies such as public/private key generation, X509 certificates, certificate revocation lists etc. (b) configuration and control interfaces for computer services including network, directory, specialized file services, and authentication services (password, smart card, biometric).

- Development of the National Level Repository (NLR) in support of the HITECH act. Developed the payment module which allows eligible providers of Medicare Services to receive payments for "meaningful use" of electronic medical record systems. This system was XML based and used DB2 for its database.
- Development of large applications for Linux/Unix and Windows using J2EE, Java (applets, servlets, JAAS, JCE, etc.) and C/C++. Work includes system level programming, networking, registry, cryptography, directory (LDAP), shell and graphical user interface (GUI) development.

- Selecting and implementing the use of new software applications and development tools and training others on the use of those tools.

- Management of Linux/Unix, Windows, and NetWare computer operating systems.

- I am the webmaster for a collection of sites including family website (www.theHaslams.com), a real-time weather site (www.SandyUtahWeather.com) a professional site (www.ReedHaslam.com) and others.

WORK EXPERIENCE

Lead Software Engineer – NantHealth Inc. – A personal medicine company – July 1, 2015 – August 2017.

- Implemented several algorithms in a cloud environment as part of NantHealth's move to cloud-based "software as a service" for health records and billing.
    o Java 8, Spring Boot/Cloud, ReST, JSON, Postman, MySQL, Eclipse, Mirth Match
- Provided health information exchange technologies to Kaiser Permanente, an extensive healthcare network with regional offices covering several states. Provided a central hub gateway to support all regions. The gateway interfaced between several external healthcare entities and the Kaiser regional operations.
    o Java 7 clients and Web Services, Glassfish, JAX/WS, Soap, SoapUI, XML, MySQL, Oracle, ActiveMQ, JMS, Eclipse

[Reason for leaving: RIF of 50% of the team that came from Harris, the rest were sold to Allscripts, and they suffered a RIF 90 days later]

Senior Software Engineer – Harris Healthcare Solutions - May 2012-June 2015

- Subject matter expert in Health Information Exchange
- Continued work on the development of the Nationwide Health Information Network (NwHIN) as a participant in the Care Connectivity Consortium (CCC). The consortium sponsored updates and extensions to NwHIN. The consortium sponsors included Intermountain Healthcare, Mayo Clinic, Kaiser Permanente and others.
    o Java 7 clients and Web Services, JAX/WS, Soap, SoapUI, XML, MySQL, Oracle, Hibernate, Groovy, Eclipse

[Reason for leaving: Harris Corporation sold their entire Healthcare team to NantHealth of Carson City, California]

Senior Software Engineer – Northrop Grumman Health Systems January 2006-May 2012

- Developed Web Services software for Health Information Exchange (HIE), including the development of Northrop's NwHIN-1 prototype, NHIN-2 implementation and the Military Interoperable Digital Hospital Testbed associated with the Department of Defense's Virtual Lifetime Electronic Record (VLER) initiative.
    - Java 7 clients and Web Services, JAX/WS, Soap, SoapUI, XML, MySQL, Oracle, Hibernate, Groovy, ActiveMQ, JMS, Eclipse

- Developed a payment module for the Centers for Medicare and Medicaid Services (CMS) under the HITECH act.
- Services Interfaced with other Medicare Systems for payment information and payment processing.
    - Java, Spring, iBatis, Mirth Channels and DB2

[Reason for leaving: Management insulted leaders in the Pentagon terminating any future work for that part of the federal government. Other opportunities in healthcare were limited].

Senior Software Engineer - Novell Inc., Sandy and Provo, UT   **1991 – November 2005**

- <u>Open Enterprise Server for Linux</u> – Team Lead for the development of YaST2 (an interpretive scripting language) based installation for all Novell services on top of SuSE Linux. Completed the project from inception (learning the technology and the framework) to delivery in just six months providing GUI management tools for 17 different Novell Services on SuSE Linux.
    - Java, YaST, SuSE Linux
- <u>Novell PKI Services</u> – Implemented public/private key cryptography including key and certificate generation on NetWare. Implemented the GUI front-end for the management of keys and certificates within a Java-based framework, interfacing with C++ coded APIs as required. Created the Java GUI for modular authentication services (multi-factor authentication) and mandatory access, controls using biometric, and smart card devices.
    - Java, X509 Digital Certificates, Certificate Revocation Lists, Java GUI, C++ interfaces with Java Directory Services, LDAP, Windows GUI, and APIs
- <u>NetWare Services for Unix Development</u> Implemented the NetWare 4.x operating system on top of Unix (Solaris/AIX) focusing on core protocol processing, file system implementation and high performance I/O. The file system implementation for NetWare services for UNIX provided 2-3 times faster performance than the prior 3.x implementation.
    - C, Memory Mapped Files, Data Semaphores

[Reason for leaving: Reduction in Force]

EDUCATION
M.S. Computer Science, University of Utah
M.S. Meteorology, University of Utah
B.A. Mathematics, University of Utah
B.S. Meteorology, University of Utah