

Justin C. Ferguson

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Skills/Tools

Application Development/Application Security

Java (Spring, Struts, Eclipse, Maven), perl, python, C, C++, Unix shell scripting, PHP, SQL (Oracle, MySQL), Web Services (REST, SOAP), Source Code Management (Subversion, CVS), HP WebInspect & Asset Management Platform (AMP), Fortify Source Code Analyzer (SCA), Imperva Web Application Firewall (WAF)

Authentication/Access Management/Identity Management

RSA SecurID, RSA Adaptive Authentication, Novell Identity Manager (IDM), Novell Access Manager, LDAP/X.500 (Novell eDirectory, CriticalPath InJoin), Public Key Infrastructure (OpenSSL, Entrust, Microsoft), RADIUS (Steel-Belted RADIUS), SSL/TLS

Networking/Network Security

TCP/IP (packet analysis & monitoring) , Firewalls (Checkpoint FW-1, iptables), Load Balancing (F5), SMTP (Tumbleweed Mailgate, Proofpoint, SpamAssassin, sendmail, qmail), DNS (bind), VPN (Cisco)

Web Development/Administration

HTML, CGI, XML/XSL/XSLT, AJAX, Java Servlets, Java Application Server (Apache Tomcat, WebSphere), Web Servers (Apache, Sun One)

Systems Administration/System Security

SuSE Linux, Solaris, AIX, FreeBSD, OpenBSD, Windows, Trend Micro OfficeScan, Splunk Log Aggregator, syslog-ng

Education

Missouri University of Science and Technology, Rolla, MO *Bachelor of Science, Computer Science, 2003*

Certifications

Certified Information Systems Security Professional (CISSP) – Certificate #67579 *December 2004*

SANS GIAC Certified Incident Handler (GCIH) *September 2007*

SANS GIAC Certified Web Application Penetration Tester (GWAPT) *August 2009*

Experience

Rockwell Collins, Cedar Rapids, IA *April 2012-present*

Sr. Application Security Administrator

Lead for corporate Application Security initiative. Responsible for creating, presenting, and implementing **strategy and roadmaps** for **Application Security and Cloud Security**, and developing **policy and process documents** for Encryption and Secure Coding Standards. Interfaced with senior management and enterprise architecture team to integrate roadmaps and strategy plans into corporate strategies. Acted as Information Security representative on enterprise projects to create awareness of potential application security issues.

Engaged in **application and network penetration testing activities**, including hands-on penetration testing of **embedded systems** and web applications, liaising with third-party penetration testers, and working with application developers to provide guidance and direction for remediation of vulnerabilities.

Actively involved in day-to-day administration, configuration, and troubleshooting of **application gateway systems**, including Imperva **Web Application Firewalls (WAFs)** and Cisco ACE XML Gateways. Developed requirements for XML gateway replacement project and aided in planning for WAF upgrade through multiple major versions.

UMB Bank, Kansas City, MO

August 2005-April 2012

Application Developer III – Java, UMB Application Development

July 2011-April 2012

Designed and developed **audit log aggregation** and analysis infrastructure, to facilitate passing of user event stream to outside partner for analysis. Developed Java **Data Access Object (DAO) interface** to Splunk log aggregation system to enable querying of Splunk from Java code. Wrote python scripts to augment log data from LDAP directly in Splunk. Configured parsing and querying within Splunk.

Rebuilt/upgraded Java revision-control and **continuous integration (CI)** infrastructure to enable a higher level of automation for code deployments. Worked with Network Engineering team to implement F5 iRules for SSL **certificate-based authentication** for SOAP- and REST-based web services.

Acted as a liaison between Application Development and Data Security teams, presenting relevant web application security and infrastructure topics to development teams. Worked closely with many parts of the IT organization to quickly troubleshoot, fix, and provide recommendations for remediation of customer-impacting issues.

Sr. Data Security Engineer, UMB Data Security

August 2005-July 2011

Member of a six-person team responsible for all aspects of Data Security. Acted as subject matter expert for **web application security** and **authentication/access control**, making strategic and architectural decisions in those areas and working closely with development and systems teams to implement directives. Was active in most day-to-day operations of the team, including **Identity Management**, authentication, encryption, **firewalls and network security**, and intrusion detection systems (IDS). Responsible for providing guidance to QA and development teams on identifying and remediating application security vulnerabilities.

Chief driver for multiple technology refresh and implementation projects, including Novell Access Manager deployment and Identity Management System upgrades. Worked closely with members of multiple departments and teams as well as outside contractors to coordinate and manage implementations of infrastructural projects. Developed numerous tools, libraries, and systems to close security vulnerabilities, improve **incident response**, and eliminate day-to-day workload for the entire team.

Actively participated in high-visibility bank projects, championing security while maintaining customer focus, balancing safety with usability. Worked with many different organizations across the enterprise to maintain a good working relationship with other teams and departments and to ensure Data Security's involvement in projects at an architectural level.

Sprint, Overland Park, KS

February 2001-August 2005

Systems Programmer IV, Sprint Corporate Security

Member of Sprint Corporate Security Identity Management team. Assisted with overall planning for Sprint's **Identity Management** architecture and integration of authentication and encryption technologies with **network security elements**. Developed **Java applications** and several **ad-hoc reporting tools** for security services organizations. Worked with groups throughout the company to **provide customized authentication and encryption solutions** for projects and initiatives at all levels.

North Kansas City School District, North Kansas City, MO

September 2001-December 2002

Instructor, Community Education, Introduction to Adobe Photoshop

Taught introductory-level digital image editing and creation to adult students. Developed all course material and adapted it to fit the experience levels of the students.

Sprint Enterprise Network Services, Overland Park, KS

June 1999-February 2001

Contractor, Sprint Corporate Security

Sole developer of web-based request-management system utilizing **Java servlets** and **XML** to create a highly-configurable replacement for traditional paper-based request processes.

Contractor, Sprint ION

Third-tier administration/support for web-based application servers and web servers. **Installation/testing** of new environments, **vendor management**, and **troubleshooting** of problems in production and test environments.

Contractor, Sprint IS

Complete development of a web-based **account management system** for Sprint's enterprise **VPN**.

United States Geological Survey, Rolla, MO

May 1997-May 1999

Student Computer Scientist

Student position consisting performing **development** of Windows- and Unix-based **Geographic Information Systems (GIS)** software, Unix systems administration, and development of large-scale websites.

The Missouri Miner

October 1994-May 1999

Editor-In-Chief, Managing Editor

Day-to-day management of a weekly, student-run newspaper.