Jason R. Coombs

1005 Carol St NE, Albuquerque, NM 87112-5370   505.459.6655   jaraco@jaraco.com

Professional Objective

Apply progressive and pragmatic approaches to computing challenges through agile software engineering

Education

MS in Computer Science, May 2002
New Mexico Institute of Mining and Technology (Socorro, New Mexico)

Subjects: Thesis titled "Simplex Internet Protocol: A High Reliability Design for Simplex Communication for Security Applications", Networking and the Internet, Managing Web (Semistructured) Data, Cryptography.

BS in Computer Science and Mathematics, Dec 1998
New Mexico Institute of Mining and Technology (Socorro, New Mexico)

Subjects: Statistical Analysis, Operations Research, Zero Defect Software, Parallel Processing.

Employment History

Software Engineer
Sandia National Laboratories (Albuquerque, New Mexico)
Sept 1993-Present

Achievements:

- Received 2006 top 5% merit award for China safeguards engagement
- Presented "Digital Identification" at exclusive Next Generation of Nuclear Scientists workshop between U.S. & Russian weapons laboratories
- Developed an extensible HTTP/SSL interface in an ARM7 embedded device for our Secure Sensor Platform
- Provided instruction in and deployment of network security systems for International Safeguards partners
- Successfully merged data collection and analysis efforts from five different nuclear and environmental monitoring projects, designed to mitigate international tensions due to environmental concerns
- Co-developed a "Customers and Capabilities" matrix, drawing data from disparate data sources to provide a simple but advanced perspective on organizational structure
- Led development of a data transformation system for automating downloads for port security applications, dramatically accelerating project capabilities
- Led design and migration of a monolithic legacy imaging system to an elegant, distributed, modular approach
- Constructed an interactive 3-D model of a nuclear storage facility for simulation of operational activities
- Created an XML/SQL-based data warehousing and distribution system for international peacekeeping efforts
- Invented an XML-based, declarative language (similar to XSL) for description of data-collection techniques
- Received high acclaim for network security and cryptographic presentations at International Nonproliferation conferences with Russia, China, and South America
- Introduced standard protocols for data exchange with our Russian collegues using XML and SQL Server
- Promoted a more cooperative team attitude and improved relations with our internal customers
- Developed aptitude for international activities in high-technology engagements

Computer Related Skills

Networks & Computer Security: Wireless Networks, Ad-Hoc Network Research, Cryptography.

Programming Languages: Python (extensive), C++ (extensive), XML (incl DOM, XML-Schema, XSLT, CSS, SOAP), Javascript, Transact-SQL, Postgres SQL, Scheme and Lisp, Perl.

Software Skills: Agile programming, advanced web portal development, semistructured & relational data management, Windows development (services, user applications), Linux (kernel development), Active Directory programming, Internet applications, distributed computation.

Security Clearance

Top Secret (Q), Department of Energy, 1993-present