

## **Jeremy T. Silva**

### **EDUCATION AND AWARDS**

BA Computer Science and Religion, Lafayette College, 2000.  
Certificate of Achievement, Solutions IIF/IRAD, Lockheed Martin, July 2002.  
Spot Award, Lockheed Martin, March 2002.  
Prestige Award, Lockheed Martin, October 2001.  
Spot Award, Lockheed Martin, July 2001.  
Mission Success Award, National Center for Applied Technology, Oct. 2000.

### **CAREER EMPLOYMENT LIST EXPERIENCE**

Chief Technologist, Silva Tech Solutions LLC, Lansdale, PA.  
Manager of Information Technology, IMEDECS, Lansdale, PA.  
Director of Information Technology, Aviation Research Group / US, Doylestown, PA.  
Senior Information Systems Engineer, The Mitre Corporation, McLean, VA.  
Commercial Applications Software Engineer, Lockheed Martin, Fairfax, VA.

### **OVERVIEW OF PROFESSIONAL EXPERIENCE**

Mr. Silva has more than 10 years of experience in database architecture, database management, systems engineering, software development, web application development, data visualization, data mining, rapid systems prototyping, network security, and systems administration.

Mr. Silva's career as a computer technologies expert started at Lockheed Martin in 2000, where he began work on an intensive research and development project. The project strewn together several commercial software packages into a highly advanced intelligence analytical portal. Mr. Silva was instrumental in the development of several high-availability software services that automatically mined various databases for requested content and delivered them automatically to end-users. Mr. Silva was promoted to the title of Commercial Applications Software Engineer and then moved to a mission critical 24/7 system. Mr. Silva developed several programs to rapidly parse and insert large volumes of text into a production database. He also developed systems for automatically compiling visual basic projects consisting of several other dependent projects and automatically detecting and reporting code discrepancies. This system rapidly reduced the time needed to test and install code into production environments saving the customer significant amounts of resources.

Mr. Silva next accepted a position at the Mitre Corporation, where he worked on rapid prototyping and data-mining projects using a proprietary-based platform. With his expertise in Java and Perl, Mr. Silva would often be sent to customer sites across the country to rapidly integrate complex customer legacy data directly into their own massive database systems. In some cases, the web application was customized in a live production environment while talking with the customer. Using open source technologies and methodical software testing, Mr. Silva was also able to achieve a near 50% increase in speed of retrieval and display of entities from a database that was several terabytes large. This dramatically increased the customers work efficiency while also saving a tremendous amount in software license costs.

Mr. Silva later accepted a position at start-up company called Aviation Research Group /US, where he was instrumental in stabilizing the custom FAA aircraft data feeds, initiating documentation procedures, enforcing stringent software version management, redesigning all graphical web application logos, and upgrading core operational servers. Mr. Silva reported directly to the Vice President and was responsible for all operational computer systems, network security, website payment processing, customer data feed integrations, software application development, and database administration. Mr. Silva managed a senior software engineer and an outside software development firm, while also supporting the computer systems of a satellite office in a different state. Mr. Silva enhanced the current analytical tools used by the staff of aviation security experts and implemented a live continuously crawling system that would automatically update the latest safety information of pilots as official recorded by the FAA, and update them into the main corporate database. Mr. Silva wrote several object orientated Perl scripts to unify numerous aviation flight data feeds, process, and integrate them into a single database. The services were designed so that even staff without IT experience could initiate and complete data feeds, without the need for any IT assistance. Mr. Silva also engineered and implemented a

remote disaster recovery failover site complete with alternative email services, completely identical operational computer systems, and system test documentation.

Mr. Silva then worked as the Manager of IT at a small independent medical review start-up company, called IMEDECS. There, he was responsible for all of the software development of HIPPA compliant medical portals, network security, database administration, and managing the information technology budget. Mr. Silva reported directly to the CEO and oversaw a system administrator. Mr. Silva made drastic improvements to the underlying database architecture, greatly enhancing the ability to properly screen expert medical credentials to prevent incorrect assignments. This saved the medical staff significant amounts of time and resources, and also reduced the likely hood of customer initiated mistakes. Mr. Silva also re-engineered the medical portal system architecture to allow for increased digital medical record storage. This increase in storage capacity was nearly five fold, and database retrieval speed was also increased significantly. In the fall of 2009, Mr. Silva led a major information system capital upgrade project. Core network switches were upgraded to more reliable enterprise Layer 3 switches, a redundant internet connection added, all core database systems migrated to enterprise VMWare virtualized environments, and a government FIPS 140-2 compliant firewall was installed. This achieved significant increases in application speeds, provided fault tolerance to all servers, and greatly enhanced the network security of the organization. Mr. Silva also managed and led teams designed to increase corporate visibility via SEO and social media, managed tiger team bids for VA federal government contracts, enforced strict source code version control, enforced stringent documentation on all major systems, and provided corporate guidance on matters of accreditation standards and procedures. Mr. Silva also designed, developed, and instituted a disaster recovery plan for a complete off-site computing environment. He also instituted regular yearly testing of the plan.

Mr. Silva started his own information technology consulting firm, Silva Tech Solutions LLC, in 2005, where he has tackled complicated projects such as complex system engineering issues, network system problems, entire corporate web application development projects, a patent-pending linguistic data modeling system for Twitter data feeds, remote automated data retrieval systems, weather data system custom reporting, and custom prototyping of software systems for data integration. In this position, Mr. Silva has worked with a variety of experts in different fields to help solve computer problems by relying on low-cost open source solutions and commercial software products. Mr. Silva gained additional experience in data sources ranging from high-speed model aircraft flight telemetry data to monitoring the Department of Transportation database on freight corporation registration.

#### **MAJOR AREAS OF EXPERTISE**

- Expert in legacy database conversion and/or enhancement.
- Full software development cycle from initial architecture to development and maintenance.
- Experienced with nearly every modern computer hardware architecture, system operating system, and development language framework.
- Great deal of experience working with customers to define and deliver only necessary system components.
- Experienced in establishing best practices for new information technology systems and training.
- Experienced in mission critical, large-scale data processing systems and virtualized high availability systems.
- Expert in rapidly prototyping complicated systems to demonstrate technology feasibility.
- Experience with numerous DoD and VA Federal Information System required compliance practices and procedures.

#### **REGISTRATIONS AND/OR CERTIFICATIONS**

- NAUI Advanced Scuba Diver, 2006
- NAUI Nitrox Scuba Diver, 2006

#### **TRAINING**

- VMWare vSphere Advanced Version 4.0, ONLC Training, 11/2009
- Conference on Emergency Response Planning for your Business, Skillpath, 11/2007