

EXPERIENCE

Precision 7

August 2006 - Present

Consultant

- Provided consulting services to small companies for system design and process improvement, software development, testing approaches, configuration management best practices, and hiring strategies.
- Coordinated stakeholder involvement to transform ideas into working project plans and development specifications.
- Managed a geographically separate software development team for the development of a web-based video service.
- Developed marketing and branding strategies for a variety of small businesses. Designed and developed websites.

Applied Defense Solutions, Inc.

January 2011-March 2014

Acting Director, Systems Development (December 2011-February 2014)

- Ensured NASA, Air Force, and Navy satellite and ground software was developed with appropriate technologies, required quality, and sufficient testing. Participated in proposal development and project costing activities.
- Managed diverse team of junior engineers and software developers, ensuring that work was assigned to efficiently complete projects.
- Responsible for the Intern Program and developed projects suitable for interns that aligned with company R&D needs. Grew the program from 1 to 5 interns over 3 summers.
- Managed the development of Spacecraft Design Tool, a COTS satellite simulator.
- Helped plan and implement satellite flight software for NASA's CPOD cube sat mission. Successfully (audited against NASA 7150 software development requirements equivalent to CMMI Level 3) created a software development plan for flight and ground software requirements, configuration management, and testing methodologies.

Senior Software Engineer/Project Manager (January 2011-December 2011)

- Lead Developer for Matlab-based solution to upgrade an existing feasibility tool used for satellite collection analysis.
- Managed Flight Dynamics System (FDS) software development for NASA Ames for the LADEE lunar mission. Worked with the prime contractor and NASA to decompose high-level requirements into implementable activities.
- Investigated and resolved various software and database issues in a flight-qualified flight dynamics system for a 5 satellite constellation for the Navy. Developed unit, system, and automated regression tests for major functionality.

Star Technologies Corporation

September 2006-December 2010

Project Manager, Software Engineer

- Managed contracts and technical work for 10-person company: proposal creation, costing analysis, task specifying and scheduling.
- Designed solutions for new user interfaces and concepts for in-theater direct tasking of satellites by the War Fighter.
- Directed development team on technologies to add to Spacecraft Design Tool, a software product used to simulate satellites.
- Architected and developed software solutions for satellite simulations.

a.i. solutions, Inc.

July 2000-September 2006

Product Manager, Application Designer

- Led a development team responsible for a.i. solutions' product FreeFlyer, a satellite mission design tool. Oversaw development of 9 versions of FreeFlyer.
- Maintained regression test system and verified tests were added for newly-added software features. Interfaced with analysts to validate algorithms against accepted solutions.
- Led a multi-year ongoing effort to redesign the FreeFlyer interface to make it easier to use for existing users and make improvements to attract new users.
- Designed a web-based NASA Satellite Mission status reporting tool for use at the Kennedy Space Center.
- Led product division for company-wide ISO 9001 certification: documented processes for software development, configuration management, requirements, testing, software releases and customer support.

Senior Internet Applications Developer (July 2000-December 2002)

- Developed a wide range of Internet based software, interactive presentations, and web sites using Active Server Pages, MS SQL Server 2000, Oracle, and Macromedia Flash.
- Led Kennedy Space Center's ELV Portal and Backbone Project. This project involved creating a system in which a number of secure web sites can be created and managed using a set of web-based tools.
- Worked as part of a team on Kennedy Space Center's ERBIS engineering review board web-based application.

WiSE Technologies, Inc.

January 2003-December 2003

Chief Technology Officer

- Planned and designed WiSE Technologies' expansion of Baltimore Washington International Airport's WiFi (802.11b)

network. Oversaw WiSE's Tampa Bay International Airport WiFi installation.

- Managed all WiFi implementations and operations, with an eye toward possible future integration with other WiFi providers.
- Optimized 40 public WiFi locations to maximize revenue.
- Helped transition in preparation for acquisition by ICOA, a publicly traded company.

Interactive Communications Solutions Group, Inc.

May 1998-July 2000

Multimedia Programmer

- Developed and designed administrative sections for web sites to give the client the ability to make changes and updates without knowledge of HTML or an FTP program.
- Developed courtroom presentations using Macromedia Flash and Macromedia Authorware.

EDUCATION

- Bachelor of Science, Computer Science. University of Maryland, Baltimore County MD.

TECHNICAL KNOWLEDGE

- Computer Languages: VB.Net, C#, PHP, Visual Basic Script, SQL, ActionScript, JavaScript, HTML, XML; some JAVA.
- Software Development Methodologies: Agile, Spiral, Waterfall.
- Government Software Requirements: NASA 7150.2
- Management Tools: JIRA (with various plugins), Microsoft Project.
- Development Software: Visual Studio 2008/10.
- Configuration Management Software: Subversion, Mercurial.
- Databases: MySQL, SQL Server 2005+, Oracle 11g, Access.
- Design Software: Adobe Photoshop, Adobe Flash, Adobe InDesign.
- Content Management: WordPress (setup and administer).

AWARDS/CERTIFICATES/TRAINING

- PMP (Project Manager Professional) Certified (June 2014), Number 1724858
- SAE 9100 Implementation (ISO) training/certificate from BSI
- Project Management/Scheduling training
- Employment Law
- Conflict Management

RESEARCH PAPERS

- "Spacecraft Design Tool for Plug-N-Play Satellite Simulation and Test Bypass Control." 36th Annual AAS Guidance and Control Conference, Breckenridge, Colorado, February 1 - 6, 2013.
- "AFRL's Tool Flow for AI&T." ReSpace/MAPLD 2010 Conference, Albuquerque, New Mexico, 2010.
- "ORS In The Cloud." Responsive Space (RS7), Los Angeles, California, 2009.
- "Operationally Responsive Space Operations." AIAA Space Operations 2008 (AIAA-2008-11907), Heidelberg, GE, 2008.
- "Training and Tactical Operationally Responsive Space (ORS) Operations (TATOO)." Recent Advances in Space Technologies (RAST), Istanbul, Turkey, 2007.

PATENTS

- Engineering Review Information System, Docket number 1735.1001. (A web-based application to support the engineering review process in any engineering field.) <http://www.google.com/patents?id=CtihAAAAEBAJ>