Kathryn R. Reading

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Professional Employment History

Technical Director | Federal Government, Washington, DC | August 2012 – Present

- Responsible for quality in engineering and strategic vision. Guide technical leads in agile design and development of secure communications systems and foster continuous improvement. Lead strategic planning efforts, aligning solutions with needs.
- Represent the Office on the Directorate's Women's Council. Mentor officers across the directorate.

Projects

Modular System Configuration Application - Technical Lead
- Designed the application in C# with WPF with Entity Framework and SQL. Prioritized user stories, led system design and implementation. Ensured quality with usability testing, unit and integration testing. The product has impact across the Center affecting every customer facing deployment.

Configuration Application Development Kit - Technical Lead
- Designed and built developer tools for configuration plugins including XAML templates, Visual Studio Templates, shared libraries, and documentation. Responsible for quality in configuration plugins across the center, lead a scrum for configuration developers.

Mission Network - Technical Lead
- Designing deployment network and software for configuration to centralize data management.

Field Software Engineer | Federal Government | August 2009 – August 2012

- Provided world-wide, cross-mission engineering support. Leveraged partnerships with engineers across directorate to bring together operational needs and technical experts, and built field expedient solutions when necessary. Led products from analysis through design, development, testing, deployment, training, and maintenance. Resulted in better relationships, new requirements, better understanding of customer needs.
- Mentored technically minded people in the creation of custom and modified software.
- Led a region wide Android development conference with operations officers.
- Used foreign language skills to assist in deployment of localized systems.

Projects

Remote Data Collection Application - Technical Lead
- Web front end with php back end. Linux based data collection and service. The successfully deployed product facilitated secure, responsive remote configuration and data management by non-technical users on unstable local infrastructure.

Remote Command and Control - Technical Lead
- Developed an Android based remote command and control data collection system.

Quick Reaction Capabilities - Technical Lead
- Provided rapid engineering support for high priority technical operations adding features, fixing bugs and identifying workarounds. Packaged solutions for reuse and communicated requirements to the engineering teams, relieving pressure on engineering group and closing need gaps.

Lead Software Architect | Federal Government, Washington, DC | November 2006 – August 2009

- Provided technical direction on all projects and chaired the Engineering Advisory Team in a branch of dozens of engineers. Defined strategic vision, aligned needs to project proposals, and steered branch culture evangelizing architecture, standards, agile principles and code reuse.
- Gathered user needs and defined requirements for a new business area. Led complete development cycle working across the engineering group to ensure successful end-to-end system functionality.
- Mentored junior engineers, helping grow their technical and professional skills.
- Improved internal communication and relationships between staff, contracts, managers and engineers.

Projects

Secure Symbian Product Line - Technical Lead
- Technical Lead for several Symbian-based projects including adding internationalization support to an existing system, and developing the UI, architecture, and configuration for a new system.
- Technical advisor for two externally contracted Symbian applications. Provided technical direction and customer representation.

Senior Software Developer | Federal Government, Washington, DC | July 2004 - November 2006

- As a member of the Technical Advisory Board, defined the branch's technical agenda and spearheaded efforts to improve the internal development environment and processes.
- Led configuration development for the branch. Served as a technical consultant to external branches in areas of expertise.
- Advised junior developers and technical leads in design, development, and leadership of software projects.

Projects

Windows Mobile PPC & Smartphone Secure Communications Applications - Technical Lead
- Oversaw design, engineering, requirements, and risk management for first projects of their kind.
- Windows Mobile 5.0 with C# for platform specific UI. C++ for cross-platform data protection and system security.
- Windows MFC C++ for configuration/deployment. XML for configuration files.

User and Data Management Product - Technical Architect
- Designed and written in C++ and C#. Designed service pack update system, implemented first service pack to prove technical concept.

Data Transfer Interface - Technical Architect
- Designed and implemented new interface between data input and data transport components. Decoupled development across the organization and improved communication between system components, resulting in improved data integrity and user experience.

Applications Developer | Federal Government, Washington, DC | August 2002 – July 2004

- Developed secure communications software in C++ and C# for Windows (XP, Pocket PC, Smartphone) and in Java for the Symbian Smartphone platform. Used XML for data storage and runtime settings.
- Optimized existing C++ code through consolidation and componentization. Centralized complicated core logic to improve quality, maintainability, design, and reuse with impact across product lines.
- Developed a configuration plug-in kit including automation tools, code templates, detailed documentation, and shared libraries to lessen software configuration burdens on other developers.
- Analyzed customer feedback on existing configuration process, designed a unified configuration and implemented the solution as a plugin framework in C++ with MFC. Resulted in improved configuration process efficiency and customer satisfaction.
- Served as a founding member of the branch Technical Advisory Board, providing technical perspective on management issues and feedback on project designs.

Localization Tools Engineering Intern | Apple Computer, Cupertino, CA | May 2001 – August 2001

- Built upon existing company localization automation tool sets using Perl to manipulate XML data.
- Developed a testing tool that improved the quality of localization in the Mac OS X operating system.
- Developed a tool to streamline submission of localized files to gather consistent and complete workload data based on a thorough investigation of the localization process.

Education & Training

Georgia Institute of Technology, Atlanta, GA

Master of Science in Computer Science, Degree in Progress

Duke University, Durham, NC

Bachelor of Science, Computer Science; Math, French and Linguistics minors
Duke in Paris Semester Program, University of Paris 7, Paris, France
First female member of the Duke University Student Government Undergraduate Computing Committee

Professional Training

Better Software Conference & Agile Leadership Summit, 2013
OREDEV: Software Development Conference, 2010
Writing User Stories Workshop, 2009
Better Software Conference & Expo, Software Quality Engineering, 2008
Project Management and System Engineering, 2008
Dr. Dobbs Architecture & Design World, Dr. Dobbs, 2007

Technical Skills/Qualifications

Languages: C# (WPF), C++, Java
Targeted Platforms: Windows, Linux, Android, Symbian
Tools: Cruise Control, git, svn, Visual Studio, Eclipse, Target Process
Development Process: Agile, Scrum, Kanban, Unit Testing
Dabbled in: Ruby on Rails, Python, HTML/CSS, Javascript, php, perl, SQL Full Stack/Front End/Back End

Foreign Languages

French, Level 3 of 5, General Professional Proficiency
Italian, Level 3 of 5, General Professional Proficiency

Federal Government Exceptional Performance Awards

2011: Developed innovative technical solution for data collection in a complex operational scenario.
2008: Designed a new interface between data production and internet transports. Fostered cross-organizational communication with exemplary positive attitude, and commitment to mission.
2007: Led a team in consolidation of configuration tools, promoting dialog between organizational units, and better use of resources.
2004: Demonstrated leadership and outstanding performance in Project Management in addition to Technical Lead responsibilities.
2004: Demonstrated innovation and leadership by streamlining configuration process and refactoring code for stability and maintainability. Resulted in a 63% reduction in deployment time and 55% reduction in code.
2003: Took ownership of configuration tools and techniques, streamlined utilities, and developed a more stable code base, becoming the recognized authority within the group.