

Kathryn R. Reading

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Education

Georgia Institute of Technology, Atlanta, GA MS in Computer Science, Degree in Progress
Duke University, Durham, NC BS, Computer Science; Math, French and Linguistics minors

Professional Employment History

Field Software Engineer | Federal Government | September 2015 - Present

- Technical expert partnering between Directorate of Operations and Directorate of Science & Technology. Identifying and evaluating commercial capabilities that can be leveraged to address technical and operational requirements.

Projects

Data Transfer Kiosk

- Kiosk application in C# UWP for Windows IoT Core and Raspberry Pi with touchscreen interface. Client side application uses SOAP APIs to communicate with back end services.

Configuration Project Port

- Porting legacy components from MFC C++ to C# WPF. Components collect and verify user selections before creating product using Python scripts. Integrating unit tests to limit human regression testing.

Lead Software Engineer | Federal Government, Washington, DC | March 2015 - September 2015

- Responsible for strategic direction, software architecture and quality for a team of engineers developing secure communications software and firmware. Built an integrated team that relies on solid configuration management and DevOps practices in an Agile environment with ceremonies, artifacts, and planning.

Projects

UX design for C# WPF Hardware Settings Application

Senior Software Engineer | Federal Government, Washington, DC | August 2012 – March 2015

- Responsible for quality in engineering and strategic vision. Guided technical leads in agile design and development of secure communications systems and fostered continuous improvement. Led strategic planning efforts, aligning solutions with needs. Mentored officers across the directorate.
- Represented the Office of Technical Service on the Directorate of Science & Technology Women's Council.

Projects

Modular System Configuration Application - Technical Lead

- Designed an application in C# WPF using Entity Framework and SQL. Prioritized user stories, led system design and implementation. Ensured quality with usability, 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 including XAML templates, shared libraries, Visual Studio Templates and documentation. Led a scrum for configuration developers across the center.

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

- Provided world-wide, cross-mission engineering support. Led products from analysis through design, development, testing, deployment, training, and maintenance. Built field expedient solutions when necessary.
- Leveraged partnerships with engineers across directorate bringing together operational needs and technical experts. Mentored technically minded people in the creation of custom and modified software.

Projects

Remote Data Collection Application - Technical Lead

- Web front end, php back end, Linux based data collection and services. The deployed product facilitated secure, responsive remote 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, relieving pressure on engineering groups.

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

- Chaired the Engineering Advisory Team in a branch of dozens of engineers, providing technical direction on all projects. Defined strategic vision, aligned needs to project proposals, and steered branch culture evangelizing architecture, standards, agile principles and code reuse.

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.
- Provided technical direction for two externally contracted Symbian applications.

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

- Defined the branch's technical agenda and spearheaded efforts to improve the development efficiency as a founding member of the Technical Advisory Board. Served as a technical consultant to external branches.
- 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 service pack update system written in C++ and C#. Proved concept by writing first implementation.

Data Transfer Interface - Technical Architect

- Designed and implemented interface between data input and data transport. Decoupled development across teams and improved communication within the system, improving 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 platform. Used XML for data storage and runtime settings. Optimized existing C++ code through componentization. Centralized complicated logic improving quality, maintainability, and design across product lines.
- Analyzed feedback on existing configuration process, designed and implemented a unified configuration tool as a plugin framework in C++ with MFC. Developed automation tools, code templates and shared libraries to Improved configuration efficiency and customer satisfaction.

Technical Skills

Proficient Languages: C# (WPF), Java, Python

Dabbled in: Ruby on Rails, C++,HTML/CSS, Javascript, SQL, Full Stack/Front End/Back End

Targeted Platforms: Windows, Linux, Android, Symbian

Tools: Cruise Control, git, svn, Visual Studio, Eclipse, Target Process, IntelliJ

Development Process: Agile, Scrum, Kanban, Unit Testing, Certified SAFe Practitioner