

# Claire Renee Thompson

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Detail-oriented computer engineer with 15 years experience in both web development and embedded software. Strengths are optimizing legacy code for accuracy and efficiency; simplifying complicated procedures; developing processes and patterns for consistent and readable code. Not afraid to dive into unfamiliar methodology and technology.

## Education

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**University of Kansas** Lawrence, KS

\* Bachelor of Science in Computer Engineering December 2004

## Computer Engineering Skill Sets

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- \* **Programming:** C#; Java; Python; .Net; C++; C; Groovy; Scheme; Lua; Visual Basic; Assembly; proprietary languages; device drivers; web applications; console applications
- \* **Remote Teamwork** Microsoft Teams; Zoom; GoToMeeting; Agile Sprints; Horizon VM; Remote Desktop; TeamViewer
- \* **IDEs:** Eclipse; Microsoft Visual Studio; IntelliJ
- \* **Bug and Feature Tracking:** GitHub; Redmine; Spiceworks; Jira; Confluence; ZOHO; Azure;
- \* **Version Control:** Git; Mercurial; Subversion; TortoiseSVN; Team Foundation Server
- \* **Continuous Integration:** Maven; Gradle; Jenkins; Nexus; Ancible; Spock; nuget; Team City; Octopus Deploy
- \* **Operating Systems:** Windows; Linux
- \* **Software Engineering:** System Analysis & Design; UML; functional requirements; rapid prototyping; bug tracking and troubleshooting; root cause analysis; documentation; release planning; full software life-cycle; Object-Oriented Design; Model-View-Controller (MVC)
- \* **Web Design:** Javascript; jQuery; JSP; PHP; HTML; CSS; XML; JSON; SOAP; Cookies; Apache HTTPD; Apache Tomcat; WordPress; mobile sites; hostfiles; CDN; integrating 3<sup>rd</sup> Party Services
- \* **Web Auth. & Security:** IdentityServer 4; SSL Certificates; Single Sign-On (SSO) using SAML2; Veracode Vulnerability Scanning and Mitigation; Personally Identifiable Information (PII); Payment Card Industry Data Security Standard (PCI DSS); Personal Health Information (PHI);
- \* **Web Scripting:** CasperJS; Selenium; Amazon Cloud Servers;
- \* **Database:** Oracle SQL; MySQL; PL/SQL; DB2; Oracle SQL Developer; Microsoft SQL Server; RavenDB; SQL Server Integration Services (SSIS); Extract Transform Load (ETL) layer; indexes; stored procedures; query optimization
- \* **E-Commerce:** Google Analytics; Tealium (Tag Management); Omniture/SiteCatalyst/Adobe Analytics; Mercent/CommerceHub; Amazon; eBay; Ecometry;
- \* **Automated Testing:** WebPerformance Tester (Load Testing); unit tests; report generation; regression testing

## Work and Project Experience

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### **Astronics Test Systems – *Applications Engineer*      Orlando, FL    Hybrid Remote/Travel    July 2020 - April 2023**

- Write embedded software to utilize instruments on the Astronics desktop and handheld radio test stations
- Work contributed to company being down-selected by US Army for TS-4549/T radio test set program
- Understand and capture customer requirements and create new designs to meet project needs
- Generate object-oriented software in C# using Microsoft Visual Studio 2019
- Perform troubleshooting and root-cause analysis as required to determine failure conditions and engineer solutions
- Utilize revision control software TortoiseSVN for all software source files and document data
- Report system bugs and request system features using Redmine project management software
- Perform software validation and verification testing
- Support other engineers through sharing specialized knowledge, debugging, brainstorming, and code reviews
- Use Microsoft Teams for remote meetings and presentations

### **Brandon Associates – *Software Developer*      Farmingdale, NY      Remote Contract    March 2017 - April 2020**

- Create and update web portal for medical insurance client, with interactive features for health providers and insurance members
- Collaborate long-distance projects with Brandon Associates located in NY and client located in NY, while based in Wichita, KS
- Use Microsoft Teams, Zoom, and Go-to-Meeting to communicate with team and client regularly
- Log into remote client servers using Horizon VM, Remote Desktop, and TeamViewer
- Write .Net and C# applications for the web and console in Microsoft Visual Studio 2015 and 2017
- Implement features based on Functional Requirement Documents (FRDs) and communications with client
- Utilize Model-View-Controller (MVC) framework in ASP.NET to support test-driven development
- Provide customized experiences for different classes of users (providers, members, admins) and roles (manager, billing, etc)
- Enforce form validation rules (Fluent Validation) to ensure user-entered data integrity and prevent Cross-Site Scripting (XSS) and SQL Injection attacks
- Integrate and manage 3<sup>rd</sup> party software libraries using nuget
- Build automated unit tests for requirements to protect against accidental error introduction in future development
- Manage client data across Facets, Microsoft SQL Server, and Raven DB (NoSQL) databases
- Develop and maintain ETL (Export, Transform, Load) processes to update client data from multiple databases to the web site
- Reduce ETL and page load times by adding database indexes and optimizing SQL queries and views
- Coordinate code changes, feature branches, and versioning with teammates using Team Foundation Server
- Manage automated deployment pipeline using TeamCity and Octopus Deploy to produce consistent deployment packages
- Modify web.settings, app.settings, and Octopus Deploy variables to provide different data sets to each deployment environment
- Provide separate SSL Certificates to each web environment and server for added security
- Communicate with client's Quality Assurance team to troubleshoot errors prior to final deployment
- Document deployment instructions in Release Planning Worksheet (RPW) for client to execute on production servers
- Track projects using Microsoft Azure KanBan boards to keep team up-to-date with status and estimated completion dates
- Proactively search for and mitigate web vulnerabilities using Veracode static and dynamic scanning
- Authenticate portal users through IdentityServer4 OpenID Connect and OAuth 2.0 framework for ASP.NET Core
- Recognize unusual login behavior by comparing a user's IP address, user-agent string, and other factors to previous logins
- Provide Single Sign-On (SSO) user authentication to 3<sup>rd</sup> party services using Security Assertion Markup Language (SAML 2)
- Track portal user behavior by implementing Google Analytics tags, cookies, and customized SQL queries
- Protect user information by hiding Personally Identifiable Information (PII) and Personal Health Information (PHI) from Google Analytics and other 3<sup>rd</sup> party utilities
- Cross-train with other team members to support multiple projects and clients as needed

### **ERI Solutions – *Software Consultant*      Colwich, KS    Contract    Nov 2016-Mar 2017**

- Research login requirements for Logical Doc, WordPress, and SyberWorks
- Design and develop MySQL schema for user login information
- Write PHP applications to enable single sign-on for disparate systems; Windows server
- Integrate PHP applications with existing WordPress website
- Consult on use of WordPress plugins
- Set up Git repository for PHP and Java projects
- Install Java and Apache Tomcat on new web server
- Gather requirements for new Safety Program assistance application
- Design MySQL schema to represent ISO standards

### **The Golf Warehouse – *Java Developer for E-Commerce***

**Wichita, KS    May 2012 - July 2016**

Back-end web development for retail web site, including implementing 3<sup>rd</sup> party tags, batch order processing, and uploading product and sales information using Amazon and other 3<sup>rd</sup> party data formats  
Design and implement Java Spring web services (SOAP and REST) on Windows and Linux to expose application data  
Deploy website and backend updates as scheduled during low-traffic hours in order to minimize inconvenience to customers  
Troubleshoot and debug customer bug reports, providing a better user experience; make corrections using Java and JavaScript  
Prioritize projects, estimate project timelines, and participate in Agile Sprint meetings  
Design and implement Java applications to integrate existing ERP with new Web Platform for smooth transition, minimal downtime  
Write SQL queries and provide web data for business analysis as required, languages include Oracle SQL, PL/SQL, and DB2  
Add, update, and test 3rd party tracking pixels and tagging for affiliates and analytics; includes Tealium, Adobe, and Google  
Implement search engine optimization (SEO) improvements such as canonicalized urls, pagination, robots.txt, and sitemapting  
Participate in on-call rotation to provide 24-7 website and E-Commerce support  
Design and automate product data and inventory feeds to match external partner data requirements; implemented in Java SE  
Monitor and correct data errors in support of marketing efforts – product listing ads, email promotions, commissioned affiliates  
Automate processing of marketplace orders (Amazon and eBay) – download and submit orders, generate and upload acknowledgement, adjustment, and fulfillment messages in return; all applications implemented in Java SE  
Write Selenium and CasperJS scripts to automate crawling the website looking for broken links and other HTTP or Javascript errors  
Design, implement, and perform load testing on the site to ensure optimal performance during high-traffic times such as Black Friday  
Perform regression testing prior to code deployments  
Build Spock unit tests for new applications, reducing effort for regression testing and building confidence in application performance  
Manage project imports and versions using Maven, Gradle, Nexus, and Jenkins; manage code deployments using Ansible scripts

### **Aeroflex – *Software Engineer***

**Wichita, KS    Nov 2005 - Sept 2011**

Develop new automated tests for military radios on an all-in-one measurement test set  
Write embedded software in proprietary coding language TMAC  
Build device drivers in C to control registers involved in sending signals between test set and radio  
Review test reports and user emails to troubleshoot and debug legacy code, finding solutions to customers' problems  
Research version control history to determine reasons for past changes and pinpoint introductions of software errors  
Troubleshoot and debug faulty equipment using schematics to guarantee test accuracy; multimeter, oscilloscope, logic analyzers  
Review hardware and communication specifications to efficiently design, verify, and test new interface cables  
Consult with manufacturers to understand and modify test criteria, supporting multiple hardware configurations for the customer  
Regression test new software, preventing new errors from being delivered  
Document Automated Test Procedures, guiding customers how to verify and validate new software  
Travel to customer bases to support verification testing and train users on the equipment  
Work in a team to design requirements for a new automated testing platform, including database design for tests and result storage  
Implement new framework in Python