

JP DILLINGHAM

Software Engineer

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Summary

Software engineer with 10 years of experience architecting, executing and managing software projects in the Industrial Automation MES/MOM (Manufacturing Execution System/Manufacturing Operations Management) space with involvement from first customer contact to completion. Experience managing and mentoring both direct reports and members of project teams across software, systems, mechanical and electrical engineering disciplines.

Wide breadth of experience in software development with most projects including both hardware and software elements. Primarily focused on full stack web and desktop/server application development in Microsoft C# .NET and SQL server. Fully versed in modern software development methodologies including Test Driven Development (TDD), unit testing, Continuous Integration (CI), and source control (SVN, Git). Active in the Open Source community with projects in C# and Java.

Experience

Senior Software Engineer

Grantek Systems Integration | December 2015 – Present

Functioning as a senior level software engineer responsible for mid to large scale Industrial Automation MES/MOM software project specification, architecture, technical planning, and execution.

Responsible for the technical engineering oversight and mentoring of less senior engineers while also contributing individually in software development and project execution.

- Leading a team consisting of four core members and approximately fifteen secondary members in the design and implementation of .NET Windows Forms and ASP.NET web applications with SQL Server backend to support a multi-site, multi-line (eight sites, over eighty lines) label verification project using Cognex machine vision cameras.
- Participating in a cross-disciplinary team to drive quality initiatives throughout the company. Providing guidance and determining best practices with regards to software development methodology, documentation standards, and Microsoft SharePoint usage and adoption.

Engineering Manager, Manufacturing Software Systems

Grantek Systems Integration | March 2014 – December 2015 (1 year 10 months)

Responsible for general management of the Manufacturing Software Systems department of the Grantek Chicago office, including the management, scheduling, and career growth of four direct reports.

Responsible for the quotation, engineering oversight, and management of Industrial Automation MES/MOM software projects with teams as large as eight, spanning multiple disciplines and involving multiple customer sites and subcontractors. Functioned as Lead Developer and Technical Lead on the majority of managed projects.

- Managed over 30 individual jobs during tenure as Manager and in the years leading up to the position. Capital budgets ranging from \$1k to \$5m and teams ranging from one to eight managed members and twenty+ extended members. Fewer than 5% of jobs went over budget.
- Lead a team of eight as Project Manager and Lead Architect over the software elements of a multi-year, multi-brewery (three initially, expanded to eight) system designed to track material losses through all phases of the brewing process using GE Proficy Historian, Plant Applications, Microsoft SQL Server and Reporting Services and a custom ASP.NET, JavaScript and HTML5 application.
- Served as architect and mentor in the implementation of a highly successful project to track sausage yields for Hillshire Brands using Rockwell FactoryTalk Historian, VantagePoint and Xcelsius dashboards, as well as Microsoft SQL Server Reporting Services reports. The project resulted in a case study by Rockwell Software to showcase the efficacy of their FactoryTalk platform.
- Lead a team of four in the specification, documentation, architecture and implementation of an enterprise-wide regulatory compliance tracking system using an ASP.NET MVC, HTML5 and JavaScript front-end with a Microsoft SQL Server backend.

Software Engineer

Grantek Systems Integration | August 2007 – March 2014 (6 years 8 months)

Responsible for the design, implementation, commissioning, and support of Industrial Automation MES/MOM software systems with an emphasis on data collection, storage, and reporting. Independently delivered several successful projects on time and at or under budget with minimal supervision.

- Designed and implemented a production MES reporting system using Rockwell FactoryTalk VantagePoint, Microsoft SQL Server and Reporting Services and a custom ASP.NET application to display data collected by a Siemens MES system. Materials created for this project were later used by Grantek for marketing, trade shows and recruiting events.
- Designed and implemented a system to track and record delivery trucks as they delivered loads at a customer's site. RFID badges were used to track truck location and a GE Proficy iFIX application with Microsoft SQL Server backend were used to collect and store data. Hardware included outdoor marquee displays, positioning photoeyes and a remote scale interface.
- Designed and implemented a custom guided batching system for the mixing department of a large food and beverage client. Originally designed for four mixers and later expanded to nine, with several ongoing improvements over a six-year span, including addition of RFID badge reading and SAP barcode scanning. A distributed Rockwell FactoryTalk View application was used as a front end while Microsoft SQL Server and FactoryTalk Transaction Manager provided the back end. Crystal Reports Server provided reporting.

Extracurricular Activities and Volunteerism

Open Source Software Developer

December 2015 – Present

Actively participating in Open Source Software development during off-work hours with repositories written in C# and Java.

- Authored over 500 contributions (and counting) to public repositories in 2016.
- Owned repositories contain approximately 10,000 to 12,000 lines of source code.
- Member of the Free Software Foundation and the Open Source Initiative.

Education

Bachelor of Science, Computer Science

Western Illinois University | 2003 – 2007 | 4.0 Major, 3.8 Cumulative GPA, With Honors

Honor societies of Phi Kappa Phi and Upsilon Pi Epsilon, received the "Outstanding Senior of 2007" award for the Computer Science department.

Skills/Knowledge

Domain Knowledge

- MES (Manufacturing Execution Systems), MOM (Manufacturing Operations Management)
- Manufacturing Intelligence, Business Intelligence

Software Engineering and Development

- Object Oriented Programming (OOP) and Design, Software Design Patterns
- Unified Modeling Language (UML)
- Software Configuration Management, Unit Testing, Continuous Integration
- Source Control, including Git and Subversion
- Microsoft .NET including C#, Visual Basic (VB) and ASP.NET
- JavaScript and HTML5
- Java
- Database modeling, design, and optimization, SQL, Microsoft T-SQL

Systems Engineering

- Virtualization (VMware ESXi)
- Windows Server administration, Microsoft SQL Server implementation and basic administration
- Linux/UNIX
- Hardware specification

Project Management

- Mentoring and Team Leadership
- Requirements modeling and documentation, Design documentation
- Task and resource planning
- Microsoft Project/Visio