

# Mark Wilhelm

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## Summary

Experienced technologist with a demonstrated history of working primarily in the insurance, hospital & health care industries. Skilled in Medical Devices, Cloud Native Applications, Scrum, Business Process Improvement, and Amazon Web Services (AWS). Strong team centric mentality leading to team cohesion and high retention rate. Leading teams to deliver high quality software - on time, with high customer satisfaction and team growth. Highlights include:

- Migration of legacy systems to Cloud/Cloud Native architecture.
- Created on-boarding process for technical teams.
- Provide clinical insights to customers via GE analytics software.
- Created new Continuous Integration Pipelines and branching strategies.
- Created and led a custom development group to interface directly with customers.
- Coordination of development teams across the globe.
- Transformation of several software applications onto GE Healthcare platforms including Edison Edge.
- Designed and managed consumer healthcare product.
- Responsible for product technical roadmaps.
- Helped introduce and implement GE Healthcare's Agile Development Process adoption.
- Participated in several company acquisition evaluations.
- Co-developed an Agile Planning Poker tool deployed on AWS.

## Career Progression

**GE Healthcare**, Chicago, Illinois

**Senior Staff Software Architect**, 2014 - Present

**Staff Software Architect**, 2011 - 2014

Accountable for maximizing the productivity of the applications staff and the design and development of software systems, keep abreast of new technologies, incorporate those technologies when appropriate and motivate others to utilize them. This was done across several internationally dispersed scrum teams consisting of 8 to 10 members each, with members having a diversity of skill sets. The environment consisted of Amazon Web Services and Cloud Native (cncf.io) technologies rooted in Spring (Java) and Angular (Typescript) frameworks. These systems accounted for combined revenues of approximately 140 million US dollars.

- Part of a team to evaluate GE Healthcare acquisitions. Reviewed the candidate company's technical offerings, product technical stack, surrounding product technical support and how they could be leveraged and integrated into GE Healthcare's technical ecosystem. The resulting analysis culminated in a go/no-go decision for acquisition.
- Transformed current Perinatal Central Surveillance cloud offering onto new Edison Platform. Adopted the CNCF's Cloud Native initiative to help in on premise deployment while preserving a cloud vendor agnostic design. Achieved this by leveraging the CNCF's identified components such as Kubernetes, Kafka, Redis, Prometheus therefore avoiding vendor lock-in. Coordinated this effort over various international geographic regions
- Replatformed Perinatal Central Surveillance application onto Amazon Web Services. This application helps clinicians monitor the labor delivery process giving insight to the health and well being of the mother and baby.
- Developed a suite of applications designed to interact with surgical patients in an effective and efficient way for both pre and post surgery to support safe and effective care. The primary environment was a surgical patient's mobile device allowing for more accurate data collection and freeing up the clinicians. This frontend was developed in web technologies with backend services on Java deployed on Amazon Web Services.

**Lead System Designer, 2008 - 2011****Senior Software Engineer, 2005 - 2008**

Delivered on feature sets across multiple products and technologies. Additionally, tasked with renewing build pipeline thus reducing high turnaround to check-in intervals and increasing quality. Also responsible for process creation of development team tasks and integration of government healthcare regulations. Team Lead responsibilities for multiple projects.

- Led team to develop a client facing analytics dashboard with Predix, GE's industrial framework. This provided clinicians insight into the state of the patient allowing for better patient care.
- Designed and implemented a new branching strategy for various products that reduced cascading configuration specifications/personal branches, reduced merges, and multiple sync points. This also led to increased developer productivity and code quality.
- Introduced agile development processes to GE Healthcare. This was adopted by our Perioperative and Perinatal teams. Integrating these processes into the medical device development structure resulted in increased on-time delivery, features more aligned to customer needs and a more repeatable product delivery process.

**BlueCross BlueShield, Chicago, Illinois****Consultant, 2002 - 2005**

Part of the team that designed and developed an insurance health plan pricing engine and responsible for the maintenance of actuarial pricing factors used in the pricing of the corporation's health plans. The engine computed pricing models based on actuarial factors. This application was designed to consolidate the health plan pricing process across the corporation's three divisions. The effect of this project was to consolidate and standardize pricing across all divisions providing consistency and efficiencies for both the company and the consumer.

- Transformed the development team's manual, directory based source code system via implementation of a source code management system. Implementing this software and the subsequent branching scheme, led to increased software quality and developer productivity by reducing manual processes and accidental loss of source code.

**Technical Summary**

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| • Amazon Web Services  | • Kubernetes, Docker                               |
| • Git, Perforce, Clearcase   | • Kafka, Zookeeper, Helm                           |
| • Redis, PostgreSQL, MySQL, SQL Server   | • Java, Typescript, Maven, NPM                     |
| • Confluence, Rally, Code Collaborator, IntelliJ, Visual Studio Code, Eclipse, Jenkins | • Spring, Spring Boot, Hibernate, Node.js, Angular |
|  | • CNCF.io, WSO2, Prometheus, Grafana               |

**Education**

DePaul University, Chicago, Illinois, **Master of Science - Computer Science**

Webster University, Deerfield, Illinois, **Master of Business Administration (MBA)**

Southern Illinois University, Carbondale, Illinois, **Bachelor of Science**

**Patents, Licenses and Certifications**

- Patent: Systems and methods for a predictive notification engine
  - Issued Nov 29, 2011 Patent issuer and number us US8069135B2
- Scrum Master Certified (SMC) - Scrum Alliance