STEVEN B. YATES

I inspire and lead teams to solve difficult problems with creative and unique solutions.

Mobile: 651.253.6671
Saint Paul, MN 55102 steven.yates@sbyates.net

Professional Summary

Problem solver ₪ Technical leader ₪ Skilled communicator

Engineering Director focused on medical device product development and new technology introduction. Proven ability to lead and motivate product development teams from concept to successful delivery to the marketplace. Skilled at conveying complex concepts to non-technical audiences in understandable terms as well as interacting with highly technical audiences. Consistently recognized for taking ownership of projects and delivering outstanding results

SBYATES.NET, Saint Paul, MN **Mar 2025 – Mar 2025**

Managing Partner **March 2025 - present**
Consulting Engineer specializing in medical device solutions, embedded systems, and IoT applications.

- Delivering end-to-end engineering solutions from concept to worldwide commercialization for various clients and applications
- Developing innovative approaches to engineering challenges, optimizing scope and reducing costs through efficient development methodologies
- Creating specialized applications for both engineering and personal use across diverse platforms

BOSTON SCIENTIFIC CORPORATION, Saint Paul, MN **Jan 1989 – Mar 2025**

Engineering Director **August 2018 – March 2025**
Responsible for leading engineering team responsible for designing and shipping electronic medical equipment for all franchises within Boston Scientific

- Fully and personally responsible for delivering a system for world-wide commercialization in a series of launches
- Worked closely with functional organizations to create new models for development to control the scope and reduce cost of this major program

Portfolio Director **Sept. 2013 – August 2018**
Responsible for leading large cross-functional teams developing implantable devices and accessories for the treatment of Heart Failure and other related disease states.

- Ran Franchise leadership team
- Managed portfolio construction for Cardiac Rhythm Management

Program Director **Dec. 2010 – Sept. 2013**
Responsible for leading large cross-functional teams developing implantable devices and accessories for the treatment of Heart Failure and other related disease states.

- Fully and personally responsible for delivering a system for world-wide commercialization in a series of launches
- Worked closely with functional organizations to create new models for development to control the scope and reduce cost of this major program
- Led the conclusion of concept development work to define the scope of the program and establish a contract with the organization
- Engaged with functional teams to embrace knowledge driven product design, as well as strong systems engineering focus for the entire system implementation
- Worked closely with the clinical research organization to model and design cost effective clinical studies intended to demonstrate the safety and efficacy of various elements of the devices in development
- Engaged with a major cost reduction program to reduce development, test and support costs. The goal is to reduce annual development costs for the entire program by up to $20M

Program Director **Mar 2009 – November 2010**
Responsible for leading a team development project for an external medical device intended for transmitting medical data from implanted devices to web servers for clinician use: focused on cost reduction and rapid development.

- Led a team to develop a low-cost, highly reliability and easy to use communicator for device and web data exchange for remote patient monitoring
- Was responsible for leading the team to select a low-cost offshore contract manufacturer for all future CRV externals projects
- Gained organizational alignment and understanding of risks and issues with low-cost offshoring strategy for externals, actively worked through a myriad of ideological and cultural constraints
- Design target had an aggressive cost goal and design timeline: < $100 cost of goods and a 14-month project schedule

- Led team to embrace knowledge driven product design, as well as strong systems engineering focus. Both required a robust knowledge of "what the customer really wanted"
- Worked closely with contract manufacturer to develop class III medical manufacturing status
- In addition, was responsible for leading a cross-functional team to close knowledge gaps for commercialization, order fulfillment, provisioning, and carrier selection

Engineering Director **Oct 2005 – Mar 2009**

Complete responsibility for several projects in patient management group as well as portfolio responsibility Led a team which developed an internet-based patient data management system for next generation of implantable medical devices Project consisted of a custom communicator, servers for processing data and business rules, and web data presentation for patients, implanting physicians, and referring physicians In collaboration with strategic marketing directed decisions for $60M portfolio in patient management

- Lead team of 100 people and five managers
- Recruited management teams for hardware and software development, software test, and project management
- All systems were considered Class III medical devices developed under design controls
- Dedicated external device developed for device and web data exchange
- Instilled very strong emphasis on project management - used throughout development groups

Development Director for medical device programmer **Mar 2003 – Sep 2005**

Complete responsibility over project team which developed a medical device programmer for existing and future generations of implantable medical products. Project included new software operating system (Linux), wireless (RF) enabled telemetry (this feature was first to market for implantable medical devices), and enhancements over previous generation such as substantial reliability improvements. All development followed class III medical device design processes

- Took over an existing team of three managers and 75 people which was one year into project
- Project had stalled and was at risk of lengthy delays
- Led a scope reduction and risk management process and specifically championed the elimination of re-factoring software application which were not critical to the success of the project
- Focused the team on being first to the market with implantable RF capability, and killed other burdensome re-design efforts with were high risk and low value
- Ultimately the project was completed with only a six-month delay from the original plan but succeeded as the first successful wireless telemetry system for implanted cardiac medical devices
- Led pilot phase for successful introduction of wireless telemetry into implant and follow-up environments
- Production of external device completed by contract manufacturer, over 3000 devices delivered to field
- Personally worked with existing management team to overcome interpersonal issues and to focus on delivering the right product for our customers

Development Director for implantable heart failure device **Nov 2001 – Mar 2003**

Led a dedicated team which specified, design, and led into production a heart failure low voltage implantable pacemaker

- Adapted existing design artifacts from existing heart failure devices, re-factored into an implantable low-voltage heart failure system on an 18-month project development timeline
- Led the organization with audit results for compliance within medical device design controls product development process

Development Director for implantable defibrillator **Oct 1999 – Nov 2001**

Led small team of 15 engineers to re-factor existing defibrillator family into a smaller volume device

- Industry leading size design (32 cc); was smallest defibrillator marketed in the US for a period of 3 years
- Led team to pioneer technology to achieve small size and high quality and reliability: first high voltage device to employ standard PC board technology including high-power and high voltage modules for low cost production and highly reliability operation
- Record approval time with FDA, successful launch into the OUS and US markets
- Leading defibrillator for sales volume and quality, more than 60,000 devices sold during lifetime of device with industry leading reliability (0.47% failure rate over 7 year period)

Hardware Manager for implantable defibrillator **Feb 1997 – Oct 1999**

Managed team of designers responsible for hardware architecture and electronic design of dual chamber, single battery implantable defibrillator platform

- Led team of 30 analog and digital designers in the hardware development of a new platform defibrillator
- Hardware consisted of analog sensing, digital processing, power supply management, and output signal generation for pacing and defibrillation, based on a single battery architecture
- Employed new technology for analog and digital integrated circuits, including new novel memory structure for simultaneous code and data storage with very robust and reliable operation specifically intended for implanted applications
- Reduced production cost from existing defibrillator platforms with increased functionality and improved reliability

Manager of integrated circuit development group **Feb 1995 – Feb 1997**

Managed team responsible for integrated circuit chip design, layout, and verification

- Managed small group of integrated circuit designers
- Responsible for all integrated circuit development for implanted devices
- Led the evolution to industry leading integrated circuit technology deployment for size and power savings
- Led the process to acquire second source capability for integrated circuits suppliers for implantable devices
- Established and maintained strong rapport with integrated circuit manufacturers

IC design engineer **Jan 1989 - Feb 1995**

Responsible for integrated circuit design and layout for mixed mode application specific circuit for an implantable defibrillator

- Lead engineer responsible for design and layout of integrated circuits for implanted defibrillators project
- Lead engineer responsible for layout construction, verification, modeling, and maintenance of an ultra low-power low-maintenance cell library for use with digital implanted integrated circuit design

Additional Positions Held

VTC, Incorporated Minneapolis, MN
IC design engineer 1985-1988

Motorola Semiconductor Phoenix, AZ
IC design engineer 1983-1985

Education

Bachelor of Science in Electrical Engineering
Iowa State University, Ames, IA – May 1981

Master of Engineering in Electrical Engineering
University of Illinois, Urbana, IL – May 1983
Thesis: A Distributed Communication Network with Stochastic Learning Algorithms

Patents:
Pagliolo, Joseph P, Yates, Steven B: Filter with controlled offsets for active filter selectivity and DC offset control. Honeywell International Feb, 6 2002