

Jeffrey S. McArthur

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Professional Profile

Senior Management-Information Technology

Expertise and experience in establishing the processes and procedures transforming information technology organizations into predictable, sustainable, and measurable high performance teams delivering quality products on time and on budget. Came up through the ranks: programmer to manager to director. Full responsibility for budgeting hardware, software, and staffing. Proven ability motivating and leading development teams.

**Business Strategies • Infrastructure • Software Development
Technology Initiatives • Mentor • Meet Critical Deadlines
Project/Product Management • Performance Optimization • Data Warehouse**

Professional Experience

Octagon Research Solutions

2011 to Present

Wayne, PA

Offers a suite of regulatory, clinical, process and IT solutions to the life sciences industry.

Product Development Manager

Responsible for planning and execution of commercial software product development including project management, software development, testing, infrastructure, and customer support.

- Developed and maintained standard operating procedures ensuring efficient, effective execution and high standards of quality.
- Manages budget, resources, and project delivery/deliverables.
- Introduced Test-Driven Development (TDD) and Domain Driven Design (DDD).
- Redesigned the architecture of a key product to support scalability and reliability.
- Introduced comprehensive logging architectures.
- Established continuous integration server, Jenkins, including execution of unit tests.

Sirius XM

2010 to 2011

New York, NY

Sirius XM Radio provides satellite radio services to over twenty million subscribers.

Streaming Media Manager

Responsible for the ongoing development, maintenance, and operations of the Media Players and all related applications including determining project prioritization and resource allocation. Managed teams in two geographic locations: New York and Washington.

- Introduced Agile software development methods including Scrum.
- Managed the full SDLC including analysis, design, construction, testing, implementation, ongoing monitoring, maintenance, and support meeting the technology needs of the business.
- Established policies, standards, and practices assuring effective system development.
- Created cutover project plan including integration of out sourced applications.
- Hands-on code review of LoadRunner scripts ensuring load tests scripts actually tested the system and would not affect production.
- Hands-on code reviews of Java and Flex outsourced development.

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Professional Experience *(Continued)*

Ryzing

2010 to 2010

Philadelphia, PA

Ryzing is a venture-backed social gaming company focusing on the development of games for Facebook.

Director of Software Development

Responsible for the completion of the game engine, data access layer, database, testing and setup of the live deployment configuration and final deployment of a stable version. Significant hands on development introducing comprehensive logging using Log4Net, Test-Driven Development (TDD) using NUnit and continuous integration using Hudson. Managed teams in Philadelphia, the Ukraine, and India.

- Planned, documented, and hands-on implementation of the alpha, quality assurance, and production systems on Amazon's Web Services (AWS Cloud).
- Defined the system architecture supporting multiple production chains allowing instantaneous switch over to new versions of the software.
- Implemented continuous integration system using Hudson. Automated the costly and time-consuming task of rolling out new releases of software.
- Planned and implemented a comprehensive monitoring system using Nagios.
- Restructured the version control archive in SVN to support branching and tagging following best practices. Implemented automated tagging of each release.
- Defined and implemented backup, restore, and disaster recovery plans.
- Drafted Statement of Work documents and coordinated with outside vendors.
- Introduced and enforced through hands-on leadership coding standards.
- Introduced design patterns monitoring system performance.
- Hands-on development adding logging throughout various applications.
- Worked with the outsourced development team in India on a daily basis.
- Planned, documented, and implemented a scalable architecture to support hundreds of thousands of simultaneous users.
- Planned and documented the process of continuing operation even during failure of a system.
- Increased security by encrypting configuration information as part of the automated build process.

Music Choice

2009 to 2010

Horsham, PA

Music Choice produces music-related content for cable, mobile device, and the web.

Senior Software Development Consultant

Responsible for the design and implementation of significant improvements to the architecture of the domain and repository used by the high traffic websites of Music Choice. Significant hands on development using Domain Driven Design (DDD) and Test-Driven Development (TDD).

- Designed, implemented, and documented architectural design patterns to monitor system performance.
- Solved performance issues with the enterprise service bus (ESB) by using domain driven design and test-driven development to create a multithreaded predictive caching layer making the web site more than forty times faster.
- Led changes in the development process for the web development team by introducing logging with Log4Net, test-driven development using NUnit automated testing, and mocking.
- Hands-on leadership introducing code documentation tools including Sandcastle.

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Professional Experience *(Continued)*

Music Choice *(Continued)*

- Provided technical support and created API documentation for third party vendors implementing mobile websites and applications.
- Integrated SMS aggregation with the back office enterprise service bus (ESB).
- Successfully used both WSDL-first and code-first development using Microsoft Windows Communication foundation (WCF).
- Created mock implementation of the enterprise service bus (ESB) allowing comprehensive integration testing without the affecting the limited ESB resources.
- Hands-on experience with test-driven-development and automated test tools. Created extensive regression tests using the NUnit framework.

National Digital Medical Archive (NDMA) 2006 to 2008 *Berwyn, PA*

NDMA provides Software-As-A-Service intelligent infrastructure platforms for data management in Healthcare.

Director of Software Development

Directed all aspects of the software development department including management of the daily build system, version control system, and development VM servers.

- Expanded and maintained the master project plan for the company providing upper management a detailed view of the progress of development.
- Grew the information technology team from ten to fifteen in less than a year selecting the brightest and best candidates through a detailed interview process.
- Maintained discipline of the information technology teams. When needed developed individual performance improvement plans.
- Implemented a responsive system development life cycle based on the Agile methodology and Scrum using incremental and iterative strategies quickly and efficiently responding to changing business requirements and technologies.
- Enabled increasing deployed systems by 25% by enforcing quality control procedures.
- Organized the functions of the software development group including implementing version control, daily build, unit testing, configuration management, and release processes.
- Implemented code reviews and coding standards objectively identifying components needing refactoring enabling the company to plan for continual quality improvements.
- Developed training plans, created training materials and examples. Taught classes on software development tools and techniques.

ATLIS Systems, Inc. 1991 to 2006 *Silver Spring, MD*

ATLIS created custom software solutions to manage information needs of customers. DSCS acquired ATLIS in January 2009.

Director of Software Development

Dramatically expanded the programming capabilities through training and hiring. Directed all aspects of the software development department.

- Envisioned and led the design and implementation of the company's new enterprise management product line.
- Ten years experience at estimating the time and effort of technical projects. Determined pricing and staffing requirements based on time and effort estimates.

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Professional Experience *(Continued)*

ATLIS Systems, Inc. *(Continued)*

- Authored proposals, requirements, objectives, specifications, pricing, and scheduling.
- Effectively used project management software to track the cost, time, and progress of projects using in-house, off-site, and offshore (India) contract programmers.
- Hands-on experience with automated testing tools for graphical user interface testing. Developed full regression test suite for application providing complete coverage of all features.
- Delivered technical demonstrations and presentations to existing and prospective clients.
- Designed and implemented data warehouse for global 1000 company. Hands-on coding, management, and leadership in the transformation and loading of over one hundred separate source databases.
- Managed the development of multilingual database: English, French, Italian, German, Spanish, Portuguese, Dutch, Russian, and both Simplified and Traditional Chinese.

Education

University of Phoenix, Business Management. BS with honors.

University of Utah, Mathematics and Physics. Dean's List. Honor Society.

Military Service

U.S. Army, Sergeant, E-5. Honorable Discharge. Good Conduct Medal

Technical Competencies

Experienced software development leader. Hands-on experience developing, managing, and leading the complete software development life cycle of scalable, distributed, software solutions on Windows and Linux platforms. Hands-on experience managing and deploying applications to Rackspace and Amazon clouds. Expert with Microsoft Project. Years of experience with Agile programming methodologies. Proficient in: Unit Testing JUnit/NUnit, .Net, AJAX, ASP.Net, C#, C/C++, Delphi, Java, JavaScript, PHP, Python, Silverlight, XAML, WCF, WPF, SQL, MySQL, MS SQL Server, PostgreSQL, DB2, Oracle, UML, HTML, XML, XSLT, CSS, multithreaded applications, VMware, Rackspace and Amazon clouds, extract-transform-load (ETL), project management tools, compiler/language design tools (Lex/Yacc), and Agile and extreme programming methodologies.

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Recent Presentations and Publications

- "Importance of Inspections in Outsourced Programming" presented at The Third International Conference of Software Process Improvement in Orlando, Florida on March 5th, 2006.
- "Calculating Deciles with Microsoft SQL Server without Using Temporary Tables" in *Journal of Conceptual Modeling*, Issue 33, September 2004. This article is available online at <http://www.inconcept.com/JCM/September2004/McArthur.html>
- "Managing T_EX Software Development Projects" in *TUGBoat, The Communications of the T_EX Users Group*, Vol. 20, No. 3, September 1999.
- "Developing Database Publishing Systems using T_EX" in *TUGBoat, The Communications of the T_EX Users Group*, Vol. 19, No. 2, pp. 188-194, March 1998. This article is available online at <http://www.tug.org/TUGboat/Articles/tb19-2/tb59mcar.pdf>
- "Circles" in *Compute!* Vol. 5, No 7, pp 165-168, July 1983. Reprinted in *Compute!'s Third Book of Atari*, pp 153-160, 1984.

Web Sites

www.sirius.com - www.xmradio.com - www.siriusxm.com

Responsible for the ongoing development, maintenance, and operations of the Media Players and all related applications.

www.masterseek.com

Designed, coded, and implemented beta version of the high traffic site www.masterseek.com including support of multiple languages.

swrv.tv

Creating an intermediate web cache server solution allowing Music Choice to release their new interactive television network.

bingo.ryzing.com

Defined the system architecture supporting multiple production chains allowing instantaneous switch over to new versions of the software.

www.jeffreymcarthur.com

Personal website.

jeffmcarthur.blogspot.com

Personal blog.