

SOFTWARE ENGINEERING MANAGER

Summary

Experienced software engineer, and hands-on engineering manager with 20+ years of product development experience in broadcast media, and 10+ years of experience in leading development teams (20+ engineers), hiring (10+ offers, 40+ interviews), HR personnel procedures, performance reviews, and project transitions.

Professional Experience

September 2009

to

Current

Company Name City , State Software Engineering Manager

- Visual C++, Windows, STL, OOP, MFC, threads, file maps, ATL, IPC, FTP, TCP, HTTP, XML, JSON, services, web services, REST API, SOA, media formats and standards, codec SDK and integration, MPEG-DASH, API design and documentation.
- BCD spinoff as Imagine in 2013) Nexio video servers and applications facilitate collaborative workflow in Nexio LAN with video servers, services and applications running in various nodes.
- Media comes from proprietary SAN or generic storage off NAS.
- Development and team management, Nexio servers' applications, Payout business unit: Relocated from IL to CA, took on larger role, and video server applications as well.
- Led team of 6 from Burbank, team of 8 from Naperville, and team of 8 (indirect report) from Beijing.
- Introduced peer reviews, repurposed components, and all 3 teams collaborated as one large team.
- Adopted Scrum since 2014 (ScrumMaster), team of 3 to 6 from Burbank; Naperville office closed in 2013.
- Team migrated source revision control to Mercurial / Jenkins, 30+ products.
- Recipient of "Reuse Innovation Award" for IP reuse, major factor to Server business unit turnaround.
- Released deliverables for Nexio Software Suite 6.0, 7.0, 8.0, Global Proxy Suite 2.5, 3.0, 3.5 Initiated, architected and executed SOA from concept to completion to facilitate decoupled UI clients, 2 web services and 10 services, and selected hands-on projects include: Hercules web service for web player solution based off MPEG-DASH Created C++ engine to process URI, handle sessions, and deliver segmented MP4 atoms (H.264, AAC) Provides dynamic HTML5 player page; JavaScript source based off dash JS.
- Supports multiple raster sizes and bit rates; "ready to go" and "just in time" sessions.
- Team helped with providing C# web service framework, CLI bridge layer, and device testing.
- Published functional, REST API, and URI specification document.
- JSON services on TCP stack using C++ as part of SOA Created API framework classes; multi-threaded server side socket classes.
- Created header only JSON parser on top of open source "rapid json" for SAX style reader.
- Developed new services: Content Manager, Helper, Picon, and Requestor.
- Evolved as services: Encoder, GPRX, Helios, MB, Scavenger, and Transcoder.
- Guided GPRX, Helper, and Requestor to completion.
- Published 10 JSON protocol API documents for 3rd party and in-house use.
- Content Manager service for primary-backup workflows Multi-threaded rules based engine to manage media contents between two domains.
- Architected and developed new UMID based solution (gen 2) for new workflow needs and scalability.
- Scavenger, Transcoder for low-res proxy management Needed solution to improve legacy products, required regular hand holding, remained escalated.
- Proposed new approach, teamed up, and successfully wrote two new 24/7 products.
- MediaBase DLL, desktop explorer for assets (C++, MFC) Guided to optimize original implementation for 200K IDs to meet storage scalability needs.
- Achieved constant UI performance under few milliseconds regardless of user operation.
- Proposed to introduce "dta-handler" architecture in ftp-server Approach helped to consolidate all media formats as one product build, and scalability.
- Team added one converter DLL per media container format for import and export.

November 2005

to

August 2009

Company Name City , State Software Engineering Manager

- Development and team management, Nexio editing applications: Led team of 8 from Naperville, and team of 8 (indirect report) from Beijing.
- Hired, mentored and built core editing team to size of 8, and collaborated with expanded team in Beijing.
- Established development process document for consistent procedures and peer code review guidelines.
- Team established crash dump analysis procedures to help troubleshoot hard to repeat issues.
- Released deliverables for Video Editing Suite 2.5 Proposed architecture and teamed up to develop server integration modules for video broadcast workflows.

August 1997

to

October 2005

Company Name City , State Principal Software Engineer

- Harris Corporation acquired Leitch) Architected, designed, and implemented fundamental DLL components for evolution of video editing product, and major projects include (C++, Win32, threads, GUI): Interactive playback architecture Media file reader and writer components, scalable decoder and encoder architectures.
- Video and audio rendering engines Hardware integration modules, critical part of business success in post-production space.
- Interactive picon and waveform drawing components 64-bit and Unicode migration of all modules with over 4 million lines of code.

August 1994

to

July 1997

Company Name City , State Software Engineer

- DPS acquired Star Media; Leitch acquired DPS in 2000).
- Star Media, technology startup, created video editing software Velocity for post-production space, and developed projects include Project media management tools, Render Bank, and video effects.

Education and Professional Training

Illinois Institute of Technology City , State M.S : Computer Science Computer Science

National Institute of Technology City , India B.E : Electronics and Communication Engineering Electronics and Communication Engineering

Products: <http://www.imaginecommunications.com/products/playout/video-servers>

Skills

API, Approach, ATL, audio, backup, broadcast, C++, CLI, com, CA, Hardware, concept, Content, clients, documentation, dynamic HTML5, editing, XML, FTP, functional, drawing, GUI, http, IDs, Innovation, explorer, IP, JavaScript, json, LAN, MB, C#, MFC, office, Win, Windows, 2000, migration, NAS, OOP, page, Proxy, rendering, SAN, Scrum, servers, specification, team management, threads, troubleshoot, Video, Video Editing, Visual C++, workflow, writer