Michael T. McFadden

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Dynamic and results-driven senior software leader with expertise architecting enterprise solutions and driving digital transformation initiatives.

Proven success aligning technical vision with business objectives, delivering innovations that generate revenue growth and operational efficiency. Skilled at securing C-suite buy-in for strategic initiatives, leading cross-functional teams, and designing scalable cloud infrastructure for mission-critical operations. Known for transforming complex technical challenges into elegant solutions while championing engineering excellence and driving organizational change.

Areas of Expertise

- Team Leadership & Training
- Software Architecture
- Strategic Technology Planning
- Enterprise Platform Modernization
- Cloud Infrastructure Strategy
- Stakeholder Engagement

- Change Management
- API Development & Integration
- Release Management & DevOps
- Peer Review Governance
- Database Optimization

- Cross-Functional Team Leadership
- Talent Acquisition & Onboarding
- Analytics Platform Integration
- Digital Asset Management

Career Experience

Radio Free Asia, Washington, DC   **2011 – Present**
Broadcasting Software Engineer, 2025 – Present

Engineering custom media management solutions to optimize digital workflows and content distribution across organization. Oversee cloud infrastructure strategy and implementation across AWS ecosystem, managing EC2 compute architecture, serverless Lambda functions, S3 storage solutions, and IAM security frameworks to support mission-critical broadcasting operations.

- Architected and led enterprise integration initiative between IBM Aspera's file acceleration technology and Dalet Flex Digital Asset Management platform, enabling high-speed content ingestion capabilities for broadcast operations.
- Directed deployment of enterprise-grade Aspera HSTS infrastructure, engineering custom Dalet Flex platform extensions to accommodate specialized file transfer workflows and operational requirements.

Web Engineer II, 2019 – 2025

Directed software engineering lifecycle and release management strategy, leading version control migration from SVN to Git. Established and enforced code quality standards through systematic peer review processes and pull request governance across development teams. Led continuous improvement initiatives delivering bug fixes and platform enhancements to ensure system stability and optimal user experience. Managed Akamai EdgeSuite CDN strategy, optimizing global content delivery infrastructure and performance.

- Led enterprise-wide digital transformation initiative, orchestrating complete Plone 4 to Plone 5 platform modernization including Python 2 to Python 3 codebase migration and full content migration across organization.
- Spearheaded critical video delivery architecture redesign within 90-day constraint when vendor discontinued service, presenting strategic alternatives and prototype solution directly to C-suite leadership to secure executive buy-in.
- Engineered and delivered production-grade HLS streaming platform using open-source technologies, Flask framework, and custom network protocols, preventing service disruption for platform serving 100 concurrent users and processing 20 hours of daily video content.

- Drove technology decision resulting in CEO approval for in-house solution over external vendor alternatives, demonstrating strategic thinking and cost-benefit analysis capabilities.
- Maintained zero-incident production operation for three consecutive years with no user complaints or service degradation, demonstrating operational excellence and solution reliability.
- Published Caster Pak as open-source contribution on GitHub, establishing thought leadership and providing freely available solution benefiting broader technology community.
- Transformed organizational training approach by designing and implementing scalable program structure with recurring biweekly schedule, eliminating scheduling inefficiencies, reducing training coordination overhead, and improving organizational alignment across 14 independent language services and multiple global time zones.
- Earned executive recognition with performance review citing "incredible" execution and "ingenious" approach for training program transformation and organizational impact.

Web Engineer I, 2011 – 2019

Oversaw multi-generational content management platform evolution from Plone 2 through Plone 4, ensuring enterprise system stability throughout major version upgrades. Established quality assurance infrastructure including unit testing frameworks and organizational coding standards to improve code reliability and maintainability. Developed custom API integration solutions for Tealium and Adobe Site Catalyst analytics platforms using SOAP and REST architectural patterns. Designed ticketing infrastructure with workflow automation and centralized documentation repository to systematize enhancement request management and knowledge sharing. Participated in talent acquisition strategy through candidate technical evaluation, staffing recommendations, and engineer onboarding.

- Expanded organizational multimedia capabilities by leading Kaltura Video platform integration into Plone 4 content management system.
- Diagnosed and resolved complex intermittent image rendering defect through systematic technical leadership and architectural analysis.
- Led technical investigation by isolating production issues to controlled development environment, decomposing complex rendering processes into discrete validation test suites using test-driven debugging methodology.
- Identified architectural flaw in framework incorrectly classifying binary JPEG data as HTML when specific byte sequences appeared, causing transformation pipeline corruption.
- Re-engineered validation logic utilizing MIME type classification rather than byte-level scanning, eliminating false positives while improving processing efficiency and system performance.
- Established lasting quality infrastructure through permanent regression test implementation, preventing future occurrences and improving platform reliability.

ScienceLogic, Reston, VA   **2008 – 2011**
Senior Software Architect

Defined technical vision and system architecture for second-generation EM7 enterprise network monitoring platform, establishing core product functionality for scalable infrastructure management solution. Engineered high-performance technical infrastructure including high-throughput database supporting hundreds to thousands of concurrent writes per second, and parallel processing frameworks leveraging Python multiprocessing for distributed resource monitoring. Directed user interface design strategy combining PHP, HTML, and AJAX technologies to deliver intuitive administrative experience.

- Led strategic partnership initiative as technical lead for ScienceLogic-Cisco collaboration, designing specialized Cisco Telepresence monitoring solution that generated exclusive product fork and significant partnership revenue stream.
- Developed enterprise authentication bridge connecting Cisco Telepresence systems to EM7's credential management infrastructure using HTTP and XML protocols, enabling secure video conferencing metrics access.

- Engineered scalable data collection framework implementing collect-transform-package-deliver pipeline pattern to capture system telemetry across distributed Telepresence deployments.
- Built intelligent aggregation engine synthesizing discrete telemetry data points into unified call records containing duration, bandwidth consumption, and billing-ready metrics for revenue system integration.
- Engaged directly with strategic enterprise client through on-site development at Cisco Austin headquarters, delivering production-grade monitoring solution that became foundation for Cisco-specific product offering.
- Expanded EM7 platform capabilities to include Cisco Call Manager, ESX VMware virtualization, and Windows WMI monitoring using SNMP, SOAP/XML, XSLT, SQL, CURL, and native IP protocols, broadening product market reach.

Additional Experience

Application Developer, Capital One, Richmond, VA
Director of Information Technology, International Association of Business Leaders, New Bern, NC
Network Support Specialist, Tymenet Inc., Boone, NC
Research Technician – NASA contract, Appalachian State University, Boone, NC
Software Developer, Siecor Corp., Hickory, NC

Education

Bachelor of Science in Computer Science
Appalachian State University, Boone, NC

Professional Training & Certifications

Linux Professional Institute Level 1 | MySQL Developer | DAM Leadership | Fundamentals of Dam | Certified Ethical Hacking | AWS Practitioner

Technical Proficiencies

Programming & Scripting Languages	Python, PHP, C, C++, Java, JavaScript, HTML, AJAX, XSLT, SQL, MySQL, NoSQL (ZODB)
Cloud & DevOps	AWS (EC2, S3, Lambda, IAM), Docker, CI/CD, Aspera HSTS
Content & Digital Asset Management	Plone CMS, Dalet Flex, Rivendell Radio Automation, Kaltura, Metadata Management, Digital Asset Management (DAM)
Networking & Monitoring Tools	EM7 Network Monitoring Suite, JQ, SNMP, SOAP/XML, REST API, CURL, Cisco Telepresence & Call Manager, ESX VMware, Windows WM
Collaboration, Testing & Version Control	Git, SVN, Unit Testing, Test-Driven Development (TDD), Jira, Tealium, Adobe Site Catalyst, Akamai Edge suite Configuration

Affiliations & Memberships

Member, USAGM Digital Governing Council
Author, Metadata Standards & Security Whitepapers