MICHAEL (MIKE) MATTHEWS

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SUMMARY

An enterprising and highly proficient senior information technology professional with comprehensive expertise in software development, R&D services, staff coaching and mentoring, program and project management, and roadmap development. Leverages a strong foundation to produce numerous effective results for a broad range of small to large technology companies. Organizes and motivates people, positioned on leading edge of technology, effectively leverages resources and assets, and ties together platforms, technologies, and strategies. Proven success in promoting creativity, precision, and innovation motivation backed with a robust reputation for delivering results.

Solutions Architecture	Artificial Intelligence	Software Architectures
Enterprise Architecture	Event Management	Change Management
Data Management	Self-Service UX	Strategy and Roadmap

TECHNICAL SKILLS

Integration Technologies: Docker, Databricks, Tenant Security, Micro frontends, Microservices, Pivotal Cloud Foundry, AWS, S3, Kinesis, Timeseries, EC2, Apache Kafka, Spark, TensorFlow, HCP Vault, Concourse CI, JSON, XML, CSV, SSIS, SSRS, SSAS, Oracle Data Integration

Web Technologies: Angular, TypeScript, Angular Material, Ionic, Capacitor, Kite, Esri, Adobe Creative Suite, Progressive Web, SSO, Flask, Django, React, HTML, CSS, JavaScript, JSON, XML

Software Languages: GraphQL, NQL, Python, Java, PlantUML, Spring Boot, C#, JavaScript, HTML, CSS, Fly, AWK, Shell, Vault

Platforms/Frameworks: Angular, nodeJS, Pivotal Cloud Foundry, AWS, Databricks, Centos, Mongodb, Windows Azure, Oracle DB, MySQL, SQL Server, AWS Pinpoint, MSK, Kubernetes, EKS

Protocols/Transports: DOCSIS, OAuth2, HTTP, TCPIP, SSL, SCP, REST, SOAP, JAXWS, JAXB, JMX, JMS, SIP, RTC, RTP, ODBC, JDBC

IDEs and Tools: VS Code, Apollo GraphQL Studio, IntelliJ, Datadog, Splunk, Apollo Workbench, app.dagrams.net (draw.io), Lucidchart, Oracle SQL Developer, MySQL Workbench, Insomnia, Postman, Adobe Creative Suite, Visio

KEY RESPONSIBILITIES AND ACCOMPLISHMENTS

- Led solution architectures for Self-Service Billing, payments, payment methods, Autopay, EFT, Internet Banking integrations, leading to improved customer experience and $5 to $10 million in revenue gain, plus operational costs savings.
- Coordinated and helped define solution architecture process, improving business prioritization, driving technical capabilities alignment, and directing development teams, resulting in lowering costs and timeframes of delivery.
- Generated cross-organization architecture alignment and domain capability definitions, eliminating redundancies while producing net new product revenue and improving customer experience satisfaction.
- Automated customer experience self-service capabilities, yielding $10 to $20 million in operational savings per year.
- Improved network monitoring event and alarm processing, to reduce outage remediation costs by $10 million per year.
- Innovated data analytics and ML to identify new customer outage impact patterns, improving problem resolution response times.
- Created and led BI program (ACSBI) to aggregate multi-terabytes of data, producing cost savings of $10 million per year.
- Increased and enhanced overall availability of business data by 90% by effectively leading development and deployment of BI self- service web-portal based analytics.
- Generated $10 million per year in cost savings by streamlining data, applications, reporting, and infrastructures.
- Led and managed team of ten developers, collaborated with business leads to prioritize and manage IT initiatives, and served as key member of portfolio management group.
- Achieved efficiencies using artificial intelligence in applications for knowledge management, aeronautics and space engineering, healthcare, retail, and data management strategies.

EXPERIENCE

CHARTER COMMUNICATIONS, Greenwood Village**, CO**
Solution and Enterprise Architect, 2023-Present

- Led Solutions architecture for Self-Service Products and Platforms (SSPP), Data Platforms Billing domain, delivering projects for enhanced collection, flexible autopay, discount promotion, transactional billing, and internet banking integration.
- Defined architecture capability for customer experience organization. Led development teams to technical capabilities, adoption of new technology, and consolidated software services, improving quality of development deliverables.
- Delivered Data Platforms Architecture for Spectrum Portals Service Appointments management. Developed caching, backend billing system synchronization, Apollo GraphQL schemas supporting UX flows, domain level microservices with IT Service integration, and customer appointment messaging and processing. This led to enhanced customer experiences.
- Developed Unified Communications Architecture consolidation and Data Platforms Integration across large Kafka, message driven architecture (MDA), deployed into private data centers and AWS Kubernetes.
- Created Self Service Troubleshoot Internet and Video Symptoms Architectures, leveraging Spectrum Advanced Wireless products and capabilities. This led to reduction of Care Agent Calls, and Technician Truck Rolls.
- Contributed to Enterprise Portfolio Architecture: Developed and proved architecture artifacts, asset definition and patterns, using TM Forum and TOGAF concepts and standards.
- Led Converged Tech Data Platforms Architecture, supporting Spectrum Portal UX transition to Ionic, Capacitor, NG/NPM, and the Kite Design system. Coordinated backend development for Responsive mobile-first Web front end.
- Developed Data Platforms Capability Architectures for Service Appointments, Self-service Troubleshooting and Equipment/Resource Management.
- Developed architecture template artifacts supporting the Data Platforms organization, leading to development efficiencies.
- Contributed to Architecture-As-Code initiatives, automating the development and delivery of sequence, use case, and component diagrams.
- Delivered Data Platforms Back End Architecture for Spectrum portal-based Billing, including payments, statements and agreements, method of payments, and online banking integration.

COMCAST, **Englewood, CO**
Principal Architect, 2015-2023

- Innovated solution architecture process, conceived architecture artifact and patterns, business requirements, use case development, and problem/scope of work clarification. Coordinated organizational priorities, lowered cost and timeframe of development cycles, and established cross-domain and organization alignment.
- Produced cross-domain architecture capability definitions for customer experience organization. Coordinated development teams to technical capabilities, eliminating redundancies and improving quality of development deliverables.
- Organized and developed federated architecture strategy and roadmap across multiple organizations, producing cost savings and aligning technical capabilities. Improved business use case execution and customer experience response times. Innovated alarm and event stream processing and coordinated schema governance.
- Devised data management strategies to consolidate redundant data sources and transition to Comcast standard data architectures and patterns. Improved data availability and real-time synchronization, lowering cost of managing data and related infrastructure.
- Conceived advanced angular based UI framework strategy, consolidating multiple UI tools and projects, initiating micro frontend development, standardizing user experience patterns and persona adoption, and improving end user experience. Lowered costs of development, deployment, and maintenance, instituted adoption of common technical UI skillsets, and spearheaded software re-use.
- Innovated data science initiatives in analytics, machine learning, and business intelligence and produced proof of concepts and architecture patterns for various customer experience initiatives.
- Developed and coordinated core architecture initiatives to deliver middle-tier data driven micro-services, develop best practices, improved data security, share data knowledge, and adopt various data science initiatives across multiple business teams.

AVAYA, INC., **Westminster, CO**
Chief Architect and Development Team Lead, 2011-2015

- Crafted client service's BI program (ACSBI). Aggregated Avaya's services, IT, customer and partner data farms containing multi-terabytes of data. Produced architectures, led teams, and developed patterns for data management, analytics, reporting, deployment and quote-to-cash automation, supporting generation for hundreds of millions in revenue while producing cost savings of $10 million per year.

- Introduced and developed BI self-service strategy with web-portal based analytics, Oracle, and SQL Server integration, leveraging reporting services engines, Power BI, Tableau, ETL, and data services, enabling automation to transpose availability of business data by 90%, shifting from days and weeks to real-time and on demand.
- Developed architecture and implementation of technology infrastructure to data center standards, virtualization, server farms, load balancing, network management, security policy adoption, and deployment management. Led efforts to analyze business intelligence vendor offerings, feasibility study, and developed acquisition proposals to further BI technology and program adoption.
- Created mentoring program, produced training videos and documentation, and established development best practices. Designed and improved software development lifecycle process by introducing new issues tracking, source control methods, code reviews, and project and program management procedures.

ADDITIONAL EXPERIENCE

AVAYA, INC., **Westminster, CO**, **Enterprise Architect and Senior Software Engineering Manager**, 2009-2011. Guided team of ten developers in delivering operational data warehouses, consolidating reporting and analytics, and supporting sales, internal operations, business partner and customer satisfaction initiatives. Collaborated with business leads evaluating and prioritizing portfolio needs. Generated $10 million per year in cost savings by consolidating data and reporting initiatives and supporting infrastructures. Contributed and supported deployment processes. Led and collaborated on transformation to Lean/Agile processes and practices using tools and methods from Atlassian, KanBan, Rally, Scrum, and AgileZen.

AVAYA, INC., **Westminster, CO, Enterprise Architect**, 2006-2009. Served as core member of CTO architecture team developing enterprise architecture, driving cross-divisional alignment, and developing technology programs in system management, virtualization, SOA, remote access, agent architectures, end-to-end fault management, customer support, and knowledge management. Worked CxO level, VP/GM level, and director Level to achieve business-wide adoption leading to revenue gain and/or cost savings. Defined and performed analysis and led due diligence on merger and acquisition of technology assets to reduce development and delivery costs, resulting in revenue gains in service business. Supported M&A strategies, developed POCs, and presented strategy roadmaps to business divisional leadership.

AVAYA, INC., **Westminster, CO, Senior Software Engineering Manager and Architect**, 2001-2006. Generated $15 million of new revenue by creating architecture, design, and development ofASP.NET and C#-based customer inventory reconciliation program using data automation, heuristics and rules-based applications. Defined deployment architecture and integrated into existing change management. Spawned new product and services revenue by architecting and creating Java and .NET-based traffic analysis expert to measure communications product traffic trends, patterns, and anomalies and craft heuristic-based recommendation analytics on network improvements, product upgrades, and optimizations. Increased service contract revenue by 50% per year.

CAP GEMINI, UNISON SYSTEMS-QWEST COMMUNICATIONS, **Denver, CO**, **Technical Manager and Senior Web Architect**, 1998-2001. Operated as member of e-business technologies management team, defining and managing web application architectures, development environments, and standards. Reviewed and selected off-the-shelf toolsets and developed integration strategies and roadmaps. Managed development of several Intranet applications deployed on Windows 2000, NT 4.0, IIS, HP-UX, Sun, ServletExec2.2, and Linux/Apache. Mentored and trained development staff. Led architecture strategy, design, and deployment of large knowledge management web portal. Defined change management procedures, processes, and developed cost-savings tools.

LOCKHEED MARTIN, **Littleton, CO**, **Senior Software Engineer and Product Manager**, 1996-1998. Served as engineering team manager for small flight software team tasked with building real-time embedded software for satellite flight control systems. Designed software using Shlaer-Mellor OOA, and OOD techniques. Used Ada-95, C. C++ and Shell. Utilized advanced mathematics, physics, and geometric models in implementation of software. Performed scheduling and coordination of product teams associated with software product areas. Helped organization achieve ISO 9001, SEI CMM level five certifications.

STRATEGIC TRANSFORMATIONS, INC., **Denver, CO**, **Chief Technology Officer**, Contract, **2004**. Planned and created technology strategy and launch of RealShopperFeedbackTM, IVR-based automated survey instrument with integrated web architecture. Managed all phases of design and development. Led IT infrastructure planning, strategy, and cost analysis. Fielded systems and platform recommendations. Led IVR vendor selection process and management, including business case and ROI analysis. Defined and implemented .NET based web architecture. Facilitated interfaces between remote systems. Designed and implemented SQL Server-based data warehouse featuring extensive reporting.

MIDAMERICAN ENERGY, **Omaha, NE (Remote)**, **Technical Manager and Web Architect**, Contract, **2002**. Provided architecture strategy and application development for online document management system. Reviewed "off-the-shelf" toolsets and web based solutions and fielded recommendations. Managed web development activity utilizing Java Server Pages (JSP), Java Beans, IBM WebSphere, and SQL Server. Consulted on security issues. Advised IT, marketing, and operations personnel on document management concepts, web security, and web server architectures. Coordinated multiple development teams and led documentation efforts.

NATIONAL RESEARCH CORPORATION, **Omaha, NE (Remote)**, **Technical Management and Systems Architect**, Contract, **2001**. Created technology presentations, proposals, SOW, architecture white papers, requirements, and design documentation. Performed architecture analysis, strategy, and design for DoctorGuide.com project. Designed and developed advanced three-tier Microsoft DNA-based architecture. Provided technical management of all development activity, assisted in defining testing strategy, and developed migration and deployment strategies. Designed web site security and consulted on security issues. Performed extensive data modeling using ERWin 3.5. Implemented all database functionality. Planned and designed advanced searching algorithms utilizing caching techniques.

LUCENT, **Westminster, CO**, **Software Engineer**, 1996. Served as software engineer in quality assurance and test organization supporting communications products portfolio. Supported development and testing of AT&T's CMS software. Managed automation test software tools utilizing Korn Shell, AWK, C, and Informix. Designed and delivered reports on performance and functional analysis of software systems.

AT&T BELL LABORATORIES, **Westminster, CO**, **Software Engineer**, 1995-1996. Supported Bell Labs software products in system-level testing of enterprise applications. Trained on Bell Labs software engineering techniques and procedures. Designed, wrote, presented, and reviewed software system test plans. Wrote test automation tools utilizing interfaces to Informix databases. Developed software in Windows NT, UNIX, DOS, Korn Shell, Microsoft PC and SUN Solaris platforms as well as log file parsers on both client and server computers.

HUGHES INFORMATION TECHNOLOGY CORPORATION, **Aurora, CO**, **Software Engineer**, 1994-1995. Acted as team member responsible for developing production-released satellite flight-scheduling simulator. Designed and coded scheduling simulator using Booch OOA and OOD methodologies. Performed testing analysis and wrote extensive system test documentation. Researched and wrote scheduling algorithms, and various performance monitors. Developed simulator components using C++ and DOS-based scripts. Evaluated and prototyped various artificial intelligence-based scheduling algorithms.

EDUCATION

UNIVERSITY OF COLORADO-DENVER, Denver, Colorado, **Masters and B.S., Computer Science with Honors**

CERTIFICATION

Microsoft Certified Solution Provider, Machine Learning Practitioner, Java Secure Coding, Python-Flask Secure Coding

PROFESSIONAL DEVELOPMENT

Data Science Academy Machine Learning Practitioner
Cybersecurity Yellow Belt
Secure Coding Training (Java and Python)
Enterprise Architecture Training
CTO Architecture Training
Microsoft Distributed Applications
Microsoft Desktop Applications
Microsoft SQL Server 7.0 Design and Implementation
Microsoft Solutions Architecture
Docker, Kubernetes Training
Product Integrity Engineering Award (Lockheed Martin)
Tau Beta Pi National Engineering Honor Society