

APPLICATIONS --- SYSTEMS --- DATA --- ML

Senior Solutions Architect, Project Architect, Team Lead, Data Systems Manager, Adjunct Professor
Applications Development, Database Engineering, Solutions Integration, Team Lead
C#, VB, VBA, SQL, DBF, Clipper, FoxPro, Python, Agile, Machine Learning

Proven history applying technologies and methodologies to enhance and reinforce products and cultures, individual personal excellence, and introspective team growth. Recognized industry thought leader in Upstream Oil and Gas as well as Applications, Solutions, and Development.

PRIMARY TECHNICAL SKILLS

.NET (all)	Azure ML / ML Studio	Jet Brains	Pascal
C#	Microsoft ML.NET	Crystal Reports	Clipper
VB, VB.NET	Azure Cognitive Services	Telerik	FoxPro
Office VBA	Python	ComponentOne	dBase
SQL		Git / GitHub	Assembly

SOFT SKILLS

Technical leader, organizer, manager	Data management, analytics, governance
Developer team leader, coach, mentor	Integrated operations / remote operations
Solutions architect, data architect	Leadership in development through board room
Client facing, customer sensitive	Technical writing, artifact design

CAREER HIGHLIGHTS

- ★ Upstream production and operations surveillance applications and tools – saving 25% engineering time.
- ★ Data Information integration and master warehouse integrating diverse silos and source information.
- ★ Operations integration and analytics providing data reference, assessment, reporting.
- ★ Production and Operations projects and processes saving approximately 25% engineering time.
- ★ Geo-steering analytics application suite reducing analysis time > 90% (days to minutes).
- ★ Real-time processing and operational analytics reducing analysis time > 90%.
- ★ Real-time drilling operations remote oversight and support integration systems and process.
- ★ Asset allocation and scheduling solution utilizing learning analytics eliminating idle time.
- ★ Nondestructive testing system improving throughput > 25% while improving detection 75-90%.
- ★ Material management applications virtually eliminating errors while reducing support > 90%.
- ★ Material handling computer and software reducing field labor requirements by 33%.
- ★ Mail processing and automation application delivering products across the US.
- ★ Web E-Commerce and teaching application providing medical certification training.
- ★ Public resource forecasting integrating census, demographics, and enrollment analysis.
- ★ Automated food processing and sortation systems and applications.

EDUCATION

Master Engineering	2005 Texas Tech University special focus into Systems Engineering & Computer Sciences
BS Electrical Engineering	1980 Texas Tech University special focus into Systems and Digital Engineering

PROFESSIONAL EXPERIENCE

Taking a break to address training and family challenges 2018 to Present

Small contract solutions for focusing on systems, engineering, data, Azure, .NET, ML, and Analytics.

Increased proficiencies and skills with large scale databases, analytics, and Azure systems.

Self-Training: .NET, C#, VBA, SQL, Agile, Blazor, Azure, Azure ML, Azure Functions, Python, gRPC

Lone Star College, Houston, Texas 2003 to Present Online Computer Science Professor

Regional college system providing educational and work force training

- ✓ Taught undergraduate Computer Science credit courses – online and on campus
- ✓ Created course material and lab manuals
- ✓ College representative to high school outreach
- ✓ Participant in public promotional activities
- ✓ Textbook Developer
- ✓ Member Curriculum Committee
- ✓ Industry Conference Speaker
- ✓ Adjunct Professor of the Year for 2009 (awarded 2010)

Skills Taught: .NET, C#, VB, VBA, SQL, Defensive Programming, Excel, Access, PowerPoint
TDD, SQL, Design Patterns, Interfaces, Debugging, Binary Trees, Extension Methods

Southwestern Energy, Houston, Texas 2010 to 2018 Senior Solutions Architect, Data Architect, Project Architect

An independent exploration and production company

Provided the vision and innovation identifying and implementing real-time knowledge and information projects; serving as the commonality between operations and information solutions; and guiding projects into integrated knowledge engineering. Responsible for identifying and implementing **real-time knowledge and information** projects. Responsible to pull together individual systems, repositories, and operation centers to add value, efficiency, and safety to the exploration and production environments.

Extensive experience with Visual Studio, C#, .NET, SQL, data warehouse, real-time, and analytics.

Key Projects:

- ✓ Production surveillance and optimization (ProWELL+)
- ✓ Geosteering integration and analysis (Upstream Integrated Toolbox)
- ✓ 24/7 drilling operations (Rig Data Integration – RDI2)
- ✓ Real-time drilling aggregation and analytics (Rig Data Intelligence – RDI3)
- ✓ Drilling and completions asset allocation and scheduling (Dev Schedule)
- ✓ Upstream operations surveillance workbook (Surveillance Assistant)
- ✓ Site Maintenance Response and Reporting (Site Inspection Regulatory System – SIRS)
- ✓ Royalty Interest Information Sharing
- ✓ Data Information Sharing Hub (DISH)

Skills Utilized: Systems, Real-Time, Analytics, .NET, C#, VB, VBA, SQL, PPDM, WITSML, Wellview, Boresight, Spotfire, MDM, CQRS, TDD, SDLC

Intent Driven Designs, Houston, Texas

1998 to 2010

Principal Architect, Director, CTO

Independent software development and maintenance services company

Engineering and development director for real-time data acquisition, engineering, systems solutions, application architecture and development. Managed, implemented, and supported customer-directed operations solutions – real-time, operations-centric products and processes.

Extensive experience with Visual Studio, C#, .NET, SQL, data warehouse, real-time, and analytics.

Key Projects:

- ✓ Non-destruction Pipe Inspection System (DigiPro™)
- ✓ Oilfield pipe management, processing, and reporting (Tubular Data Systems – TDS™)
- ✓ Handheld inspection data aggregation and reporting (Portable Data Logger – PDL)
- ✓ Census analysis and enrollment projections
- ✓ Statement processing and mail processing system (GoPrint™)
- ✓ Automated dry-food processing and sortation system
- ✓ Service Fee Report Manager

Skills Utilized: Systems Architect, Data Architect, Project Architect, Real-Time, Electronic Engineering, Analytics, .NET, C#, SQL, VB6, Access VBA, Excel VBA, Clipper, LabView, Component One

Scan Systems Corporation, Houston, Texas

1991 to 1998

Data System Manager

Oilfield services company providing OCTG Inventory Control, Reporting and Inspection Solutions.

Full charge manager for application development and delivery. Design, develop, and deliver oilfield applications including real-time data acquisition, mobility, and OCTG management systems. Duties included hiring authority and performance reviews.

Engineering and development director for real-time, instrumentation, systems, applications and support.

Key Projects:

- ✓ Tubular Data Systems™ (TDS) Oil Country Tubular Goods (OCTG) pipe yard management software
- ✓ DigiPro™ non-destruction OCTG inspection system
- ✓ TallyRite™ Custom portable OCTG data accumulation device
- ✓ Laser-based pipe-thread inspection application

Skills Utilized: Systems and Data, Real-Time, Electronic Engineering, VB, VBA, Clipper, FoxPro, C, C++, C#, .NET, 8051, Access VBA, Excel VBA, , Component One, LabView, Psion

RECOMMENDATIONS BY PEERS

“richer having Mark on our team”, “great source of knowledge”, “gave me skills I needed”, “pleasure to work with”, “keen interest in latest technology”, “wide range of skills”, “immense understanding”, “key contributor”, “fortitude to [take on] onslaught of requests”, “remarkable efficiency”, “team player”, “reliable and enjoyable”, “problem solver”, “takes time to teach”, “want to get things done, hire Mark”

COMMUNITY INVOLVEMENT

Industry Conferences – Machine Learning, Analytics, IoT – Speaker, Moderator, Chairman

Machine Learning in Oil & Gas– 2018, 2017, 2016
Data Driven Production Optimization Conference – 2018, 2017, 2016, 2015
Machine Learning AI Upstream Congress – 2018
IoT in Oil and Gas – 2018, 2015
Information Management & Analytics Upstream Conference – 2017
Digital Oilfields USA Innovation Summit – 2015, 2014
SmartFields Summit – 2014
Lone Star College – Texas Open Innovation Conference – 2017
Lone Star College High Tech Conference and Career Fair – 2011, 2009
SPE Digital Energy Study Group – 2016, 2013, 2012

Industry Developer Conferences / User Groups – .NET, Python, Azure, Machine Learning

Houston Techfest– 2019, 2018,2017, 2016, 2015, 2014, 2013
Tulsa Techfest –2018, 2016
North Houston .NET User Group – 2019, 2018, 2017, 2015
Houston .NET User Group – 2019, 2018
Austin.NET User Group – 2019

Industry Magazines and Newsletters – Author / Interviewee

Oil IT Journal, 2016, Interview with Mark Reynolds of Southwestern
Pittsburg Post-Gazette, 2016, Machine Learning in O&G (telephone interview)
Digital Energy Journal, Aug-Sep 2012, Getting Rid of Excel
Digital Energy Journal, Jun-Jul 2012, Managing Real-Time Data
Digital Energy Journal, Apr-May 2012, Service Company IT and Corporate IT

Local Community Involvement

Texas Regional Science Fair Judge – since 1997
Lonestar Regional History Bowl – since 2010
Conroe HS, Grand Oaks HS Debate Invitational – since 1998
Lone Star College Computer Science Curriculum Advisory board
Lone Star College, Montgomery Adjunct of the Year – 2010
CISD Interscholastic Robotics Competition Advisor – 2006-2008
Texas BEST Robotics Advisor – 2000-2008

READY TO SERVE

Ready to bring success and vision to technological challenges, enterprise solutions, real-time processes, analytics, IoT, automation and edge computing. Ready to implement solutions focusing on cross discipline teams, integrated user experiences, and organizational responsibility. Ready on day one.