

Ryan Jarvis

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PROFESSIONAL SUMMARY

Highly innovative and visionary technology and data leader in the energy industry, strategist, solution architect, program manager, data manager, geoscientist, and stratigrapher. Skilled at creating, implementing, and introducing new subsurface technologies to modernize business operations and accelerate business decisions. Technical leader and SME in the Open Group's OSDU forum for over 7 years. Adept at leveraging new technologies to optimize the data supply chain, enhance business processes, and increase sustainability through the adoption of industry standards.

EXPERIENCE

RockNRG Consulting: CTO and Chief SME

10/2023 – current

- Led Industry Collaboration with key individuals from Shell, BP, Equinor, TotalEnergies, ExxonMobil, and Chevron to establish industry standards around data management, data quality, technical assurance, and business decisions across all subsurface data within OSDU. Presented multiple times with BP and Equinor at industry conferences in 2024, 2025, and 2026. Led data definition sessions and provided training in Scotland, Paris, Amsterdam, Vietnam, and Norway.
- Delivered 75 million USD in value to an oil and gas operator in 19 months modernizing legacy systems and optimizing the data supply chain. Provided a data strategy and transformation roadmap to realize an additional \$45 million USD in savings over the next 5 years.
- Led the Recall Replacement Project at Oxy providing the key data mappings across structured and unstructured data types, metadata, and files to migrate the legacy petrophysical repository into a modern industry supported platform for enhanced integration and workflow interoperability. As part of the project I curated the source data in ArcGIS pro and PowerBI which included geospatial culture data such as Basins, Fields, States, Regions, Counties, Country, Townships, Sections, Lots, Blocks, and Abstracts, and golden record data such as Wells, Wellbores, Wellbore Trajectories (surveys), Well Logs and Documents (LAS, DLIS, Tiffs, PDFs, etc), Data Quality Information, Wellbore Markers, Wellbore Geometry, Wellbore Casing, and Perforations / Completion Intervals. I provided the SME QC of this data once migrated into the OSDU data platform using AWS EDI / IQ and SLB's IVAAP.
- Managed the seismic migration to the cloud project at OXY helping to re-design the seismic data architectures for streamlined access with improved data governance, quality, and performance for all users of seismic data in the business. Scripted batch jobs for seismic data conversion from SEG Y to VDS, and scripted petabytes of data migration and synchronization from legacy servers to new storage servers on-prem and in the cloud. Provided key data migration and reconciliation reports using PowerBI, Excel, and PowerShell scripts.
- Worked with BP to operationalize their trusted data ecosystem across existing corporate repositories and the OSDU data platform enabling automated pre and post-ingestion quality checks on subsurface data, modernizing the QC of data with technical assurance stamping, and generating built-in and custom libraries of data quality rules to prepare data for use in business workflows and business decisions.
- Helped establish the trusted data framework at BHP generating many business and custom rules for data quality and technical assurance across subsurface and mining industry data types.

ExxonMobil: Subsurface Data Strategy Advisor**9/2021 – 10/2023**

- Established the subsurface data vision, strategy, and roadmap catapulting ExxonMobil into the lead operator and influencer role of the Open Group's OSDU data platform enabling our privileged assets to accelerate industry support for the modernization of 4D Seismic to Simulation and Rock and Fluids workflows.
- Led the development of EMtrust to enable SMEs to certify their data for use in workflows and business decisions. Built industry standards for trusted data and worked with many key vendors to implement OSDU compatible applications with the ability to capture, honor, and track the trust context of Technical Assurance on all data products in the cloud including collections, and the ability to tie those collections to business decisions.
- Formulated the workflow-based data strategy value proposition (\$B) and influenced the industry to focus on capabilities and workflows to realize early direct benefits of modernizing workflows for the business in the cloud.
- Acted as the voice for ExxonMobil at a number of external conferences, events and for multiple publications and social media posts communicating our subsurface data vision, strategy, and roadmap to the world.

ExxonMobil: Upstream Frontier Research Program Lead**11/2019-9/2021**

- Led the team of researchers and collaborated globally across our new opportunity teams generating the key list of competitive and patentable research projects and provided management guidance with analytical dashboards showing their associated schedule, cost, and priority along with business value.
- Invented Stratigraphic Analytics for source rocks and built up the Global Analog Database for DLogR data within Petrel Studio and generated statistics for pilot areas such as Guyana, Brazil, and the West Africa conjugate margin. Worked with many experts in the company to capture the correct scale of intervals as well as the right statistics and data to best extract insights and become more predictive.
- Led efforts to identify, prioritize, monitor, and pursue key research projects within the Upstream Research Program in Azure DevOps with Kanban boards and Milestones.
- Designed & developed the Reservoir Systems plan/budget reporting system to visualize plan vs actual costs in real-time.
- Led the deep-water currents proprietary research team in establishing new global opportunities based on transporting key hydrocarbon play elements to places not originally expected.
- Global deployment of the spatially supported play element atlas as a web map service instantly integrated into existing applications and tools.
- Taught the Deep Water Apprenticeship on seismic interpretation workflows, and the Net:Gross Seminar.
- Guided the development of the Smart Netting Plugin for Petrel which released successfully into production 3Q 2020. Originally championed the idea in 2018 and made it in the developer's scope with two developer interns in the summer of 2020.
- Managed the relationships and contractual obligations with external research consortia including work completed with Heriot-Watt University, Royal Holloway University (The Drifters), and University of Texas Austin (UROC) as well as potential research contracts with University of Bremen (Elda Miramontes), IFPEN-Turbico, Andrew Hurst (Aberdeen), and the Colorado School of Mines (Leslie Wood).

ExxonMobil: Senior Exploration Geoscientist**2/2011 -11/2019**

- Awarded a finalist for EMEC's Exploration Award for Business Achievement recognizing Argentina unconventional resource adds.
- Recognized officially by the business for outstanding leadership and hard work in coordinating, preparing, organizing, and managing the Argentina farm-out process which included hosting external companies in our data room providing them data associated with the unconventional blocks of the Neuquén basin.
- Published work completed (tied over 500 2D seismic lines and 15 3D volumes together with regional traverses) on the regional framework in the Vaca Muerta Stratigraphy, Reservoir Quality and Geomechanics Workshop in November 2013 which provided enough compelling evidence to assist in the strategic decision to continue to pursue Argentina's onshore hydrocarbon resources and add nearly a billion barrels of hydrocarbon resource potential to the company.
- Created Petrel Master Projects and Petrel Studio Projects by indexing hundreds of older Petrel projects and Studio databases for enhancing the discovery of finished technical products for re-use. Integrated interpretation data from existing application software projects into master projects and Petrel Studio database. Supported hundreds of Geoscientists across multiple business units. Assisted many users in populating their projects with trusted data from key database repositories and internal file shares. Worked across multiple virtual desktops to complete loading and migration jobs to get data ready for geoscience users in the business.
- Extensive regional geology play concepts mapping and opportunity generation: Developed and interpreted from hand draw and colored Mylar 9 major large scale regional EOD maps covering over 50 million years from the late Triassic to the early Cretaceous incorporating current well, seismic, outcrop, heritage Mexico and GOM regional studies, internally generated plate reconstructions, external data sets including the GBDS and hundreds of research publications to most accurately depict the paleogeography of the greater Gulf of Mexico. This effort expanded beyond all previous works to include one of the largest areas for regional EOD in the company encompassing the entire Gulf of Mexico including all of Mexico and the Yucatan to the Atlantic ocean and the east coast of Florida. We also created several higher resolution sub-regional maps covering the east GOM focusing on the sub salt, pre-Norphlet, and Norphlet extension plays and prospects.
- Built and delivered the EOD/NTG reservoir prediction database incorporating wells, core, and analog outcrop for eolian reservoirs in the Gulf of Mexico as a one-stop shop for Norphlet prospect assessment and play element de-risking (for example - Bull Run, Umu Okuku, Spitfire, and other Oxfordian prospects slated on the drilling plan in the SE GoM).
- Individually prepared hundreds of ArcGIS maps, seismic traverses, well bore stratigraphy, well cross sections and supplies for the team's regional work sessions Recognized by EMUV as someone who went above and beyond without a formal assignment by providing advanced technical expertise and mentoring to the EMUV unconventional core group helping their team complete an expedited technical evaluation of the Canadian Lower Banff Project with XTO - an achievement viewed by EMUV as a major business accomplishment.
- Onsite Geoscientist for EMEC - providing premier technical support and products to South America New Opportunity Group, Argentina Operations, Brazil, Mexico, Business Development-Canada, Kuala Lumpur, and Luanda increasing their skills and confidence through hands-on instruction of advanced geoscience topics in Petrel (seismic well ties, survey analysis, workflow automation, field drainage radius, regional frameworks, and geobodies).
- Provided key regional stratigraphic support for new opportunity and operation teams covering the exploration of deepwater Gulf of Mexico, Brazil, and Argentina identifying and maturing prospects as well as assisting with drilling operations.

- Invented, implemented, and deployed the Stratigraphic Analytics System with hands on technical training worldwide reducing the time for prospective reservoir thickness, porosity, EOD and NTG predictions from 3 months to 3 minutes.
- Designed, developed, and documented new stratigraphic interpretation processes and workflows to efficiently and effectively capture stratigraphic reservoir properties for conditioning and maturing prospects to drill ready status
- Designed, developed, and delivered thousands of hours of technical training and support to ExxonMobil Geoscientists worldwide from London to Malaysia as well as locally in Houston teaching seismic interpretation, well correlation, geological modeling, user support, and upgrade courses with the latest versions of Petrel.
- Worked as a Clastic Stratigrapher with Vitor Abreu, Jack Neal, and Kevin Bohacs within the Stratigraphy Group Interpreting 3D seismic volumes to help determine the geomorphology and evolution of an overfilled lacustrine system as it compared to the traditional marine stratigraphic architecture. Lake Waltman member of the upper Fort Union formation of the Wind River Basin in Wyoming - GeoFrame and VoxelGeo were used to produce the geoscience products needed.

ExxonMobil: Application Developer

5/2003 – 2/2011

- Worked directly with engineers and geoscientists to deliver new proprietary reservoir simulation technologies within the company's flagship reservoir simulator.
- Designed and implemented next generation single sign-on authentication services across Windows and UNIX platforms using Active Directory and Kerberos.
- Designed and implemented next generation single sign on authentication services across platforms.
- Achieved a 60x speedup improvement in the performance of database tools using parallel computing (8 hrs to 8 min) and reduced the time for future database migrations from an average of 72 hours to 2 hours and from 141 steps to 5 steps.

EDUCATION

Masters in Subsurface Geoscience (MS)

5/2011

Rice University, Houston, TX

Masters in Computer Science (MS)

5/2003

Brigham Young University, Provo, UT

Bachelors in Computer Science (BS)

5/2002

Brigham Young University, Provo, UT

TRAINING:

Project Management, Data Management, Developing Organizational Awareness, Project Planning and Scheduling, Economic Analysis, Structure-Imaging and Interpretation of Salt-Dominated Tectonic Systems, SALT School , Fundamental Clastic Sequence Stratigraphy & Seismic Interpretation , Value Recognition in Opportunity Screening , Advanced Field Seminar - Clastic , Overview of Reservoir Quality , Master Class: Hadrian-Learning by Drilling , Stratigraphic Controls on Play Element Risking and Prospect Evaluation , Integrated Seismic Interpretation School, Wilderness First Aid , Stratigraphy-Integrated Deepwater Concepts, Interpretation Workflows, Geological Operations and Formation Evaluation, Integrated Exploration , Formation Evaluation, Geodesy and Cartography in the Upstream GACU , Geoscience Subsurface Interpretation, Seismic-Well Ties, Seismic Velocities , Geoscience Concepts for Engineers and Scientists , Reservoir Engineering Overview , Geology - Fundamentals of Petroleum

Exploration, Drilling and Production, Fundamentals of Assessment, Siliciclastic Basic Clastic Facies, Business Fundamentals , Stratigraphic and Structural Concepts, Design Thinking, Fundamental Clastic Sequence Stratigraphy & Seismic Interpretation , Advanced Integrated Seismic Interpretation School, Stratigraphy Integrated Deepwater Concepts, Stratigraphic Interpretation Workflows, Petrel Studio , Fundamentals of RokDoc, Integrated Exploration, Fundamentals of Assessment , Stratigraphy Siliciclastic Basic Clastic Facies, Upstream Business Fundamentals, Fundamental Stratigraphic and Structural Concepts , Field Safety , Geodesy and Cartography in the Upstream , Fundamental Geoscience Subsurface Interpretation , Seismic Signals, Seismic for Engineers , Seismic Resolution, Seismic Processing, Seismic Acquisition, Seismic Properties of Rocks , Geoscience Concepts for Engineers and Scientists

SKILLS

leadership, presentations, dynamic teams, data management, data modeling, data mapping, workflow diagramming, data architecture, conceptual and logical data architectures, application and system architecture, data migration, technology solutions implementation, software development, innovation, strategic thinking, communication, application integration, data governance framework development, data governance implementation, data domain stewardship, process improvement, partnership development, business value proposition generation, external collaboration, exploration geoscience research, Coordinate Reference Systems (CRS) transformations, data cataloging and inventory analysis, interpretation workflows, program management, patent & IP coordination, collaboration, consortium representative, cross-functional team management, stratigraphy, subsurface data types, analytics, prospect mapping and maturation, prospect assessment, earth science, Geological mapping, geology, petroleum, petrophysics, structural geology, regional geology, EOD/NTG predictions, seismic interpretation, well-ties, teaching, mentoring, collaboration, project management, risk management, situational analysis, cross-functional team management, presentations, analysis, communications, SQL, databases, automation, cybersecurity, authentication, authorization, computational sciences, software development, database design and administration, enterprise infrastructure and security, risk management, digital credentials, Object-oriented databases, Python, Java, C++, Microsoft .NET, relational databases, process automation, knowledge bases, sociable, helpful, open-to-change, honest, hardworking, sincere, courage of conviction, and teacher.

Systems and Applications: Petrel, ArcGIS Pro, Geodatabases, ArcGIS Online, ArcGIS Portal, IVAAP, AWS EDI, EDI-IQ, IHS Kingdom, Paleoscan, PowerBI, Tableau, Spotfire, QuestLabs Alloy, RokDoc, Geoframe, VoxelGeo, SQL Server Management Studio, Proprietary software and plugins, High Performance Computing, Visual Studio, VScode, Linux and Windows OS, Cloud Platforms (GCS, Azure, AWS), S3, NetAps On Tap – On Prem S3, SharePoint, Microsoft Azure DevOps, GitHub, GitLab, Microsoft Office (Word, Excel, PowerPoint, Access, Outlook)

AWARDS/RECOGNITIONS/VOLUNTEER WORK

- Eagle Scout, BSA Scoutmaster, Soccer Coach, Videographer, Photographer, Farmer, Tractor Operator, Outdoors, Projects