Alan Jackson

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Cloud Solutions Architect and Software Developer with over 20 years of experience leading teams, designing, and implementing solutions to solve business problems. Experienced with the oil & gas and photography industries. Primarily used the Microsoft .NET ecosystem and Microsoft Azure Cloud.

EXPERIENCE

Rutherford & Associates — Enterprise Architect

2021 - PRESENT

Rutherford & Associates maintains an ERP system for warehouse and bottler distribution. It is a desktop C# application with a SQL backend. The system includes several mobile apps and APIs.

Worked on several modernization initiatives, including payment integration, modern authentication using Azure Active Directory and Auth0, migrations of APIs to Azure App Service, a desktop to web conversions using Blazor, and DevOps automation.

In this position, I oversaw the development work of several agile teams. Responsibilities included technical feasibility and design, architecture design and review, and direct assistance with difficult technical challenges.

ExxonMobil, Houston, TX — Cloud Architect

2020 - 2021

Consulted with upstream business groups to design and architect solutions to challenging business problems. Built reference implementations to demonstrate usage of new technologies (mostly in Microsoft Azure). Examples include IOT telemetry streaming, securing web apps and apis, modern auth, and application resource/network topologies. Also worked with the cloud service team to implement secure policies.

- Built a React website with .Net Core Azure Functions to send and process simulated IOT events and another one to demonstrate a secure team landing page.
- Architected and built an IOT pipeline that used the sites mentioned above and IOT sensors attached to well field equipment. Built ARM templates and pipelines to automate the application and infrastructure deployment, including IOT Hubs, Event Grids, Storage Accounts, Stream Analytics, Application Insights, API Management, Web Application Firewalls, and Time Series Insights.
- Built a .Net Core well data API running on App Service behind Azure API Management and Azure Front Door to demonstrate secure application architectures.

SKILLS

Azure Cloud Architecture

Dynamics 365

Power Platform

.NET, .NET Core,

HTML, CSS

C#, JavaScript

MVC, Razor

ADO, CI/CD, DevOps, IaC

Javascript, Angular, React

ASP.NET, ASP.NET Core

WinForms, WPF

PowerShell, BASH

SSRS, Power BI

SQL/RDBMS

NoSQL, CosmosDB

Data Integration

Data Modeling

Virtualization

Agile Coach

Full Stack Development

ExxonMobil, Houston, TX — Dynamics and Power Platform Architect

2018 - 2020

Note: XTO Energy was purchased by ExxonMobil in 2010 and run as a subsidiary. Operations were moved from Fort Worth to Houston in the summer of 2018.

Designed, architected, and implemented ExxonMobil's first instance of the Microsoft Dynamics / Power Platform and grew the platform to several hundred users and over a dozen instances.

Dynamics Field service was implemented to maintain oil field equipment and surveillance. Power Platform applications were designed and implemented to digitize a variety of field workflows (permits, well reviews, meter installs, etc.). I was responsible for implementing development practices, data models, integration systems, platform administration procedures, licensing, controls, and monitoring. The platform replaced several legacy and paper based workflows, resulting in significant labor and license cost savings.

- Implemented CI/CD pipelines to check solutions and code into source control and automate deployments to test/prod environments.
- Built Dynamics C# plugins to process incoming ignition data from field assets and create maintenance schedules.
- Wrote a system to maintain Dynamics users (syncing user records with Azure Active Directory, looking for inactive users, maintaining user licensing costs by departments, etc). This was written using a combination of Azure Logic Apps, PowerShell Scripts, and C# back-end processes.
- Implemented a Power Apps solution to facility well reviews where I implemented some model driven apps, data flows to bring in external (SQL) ProCount and WellView data, Power Automate to process and load the data, and various Power BI reports.
- Designed and implemented data models and strategy to use production and accounting data from various systems (Ignition, Data Warehouses, Data Lake) and ingest/enrich them for use by Dynamics applications.

XTO Energy, Fort Worth, TX — Application Development Manager

2014 - 2018

Staffed and managed a team of 15 software developers, working on small and medium sized line of business applications. Converted team to use agile ceremonies (scrum / stand up, sprint planning, retrospectives) and processes (release small increments often, people and communication over processes). Maintained a portfolio of over 50 applications, mostly written in C# / ASP.Net with APIs and SQL backends.

- Worked on a role-based identity management solution for XTO that included an admin and a user facing website that I worked heavily on. Sites used .NET, SQL, EF Code First and Dapper. Also implemented many service bus (NservieBus) processes to automate provisioning services. This

solution combined all identity data from the various company platforms (Active Directory, SQL, Oracle, iSeries, App roles) and allowed users to review and request access to those systems.

- Worked on a master data management solution for unconventional well data. The process included many SQL jobs to bring in and match various well data records and fields and combine them into a "golden record". We also built a web front end (using .NET MVC then later .NET Core and Angular) to display, search, and perform data quality analysis on the results.
- Converted many applications to .NET Core and also moved to Azure. Some sites were redeployed to Azure SQL and App Service "as-is" and some were re-written to use APIs backed by Azure Functions and Cosmos DB.
- Developed a desktop application (WinForms and WPF backed by both Access and SQL) that allowed the reserves department to develop per-well reserve and production estimates and graphs in order to generate SEC reports. The application generated PostScript reports directly and had a sophisticated report search/queuing mechanism for generated thousands of pages of reports quickly. I implemented a C# command-pattern scripting system to allow automated testing and allow users to automate common well review workflows.

XTO Energy, Fort Worth, TX — Senior Software Engineer

2009 - 2014

Developed dozens of line of business applications. Most applications were web apps with a Microsoft SQL backend, but other types of applications were API services, desktop applications, and data integration jobs. Applications mostly digitized manual workflows for departments such as HR, Reserves, Land, and Accounting. Most projects were single developer projects, so I was responsible for the entire software lifecycle, including gathering requirements, development, user testing, deployment, and support.

Was the technical track lead for a 3-million-dollar identity management project that involved multiple websites and dozens of data integrations.

PhotoLynx, Ramona, CA — Lead Software Engineer

2003 - 2009

Head of software development for a small software company that provides software solutions for the independent school photography industry.

Created, maintained, and supported a suite of desktop applications that supported data driven digital workflows for school photography (capture, image adjustment, data entry, image rendering and printing, green screen, etc).

Applications were written in VB6, C++ (COM), C#, WinForms, and WPF. Most applications used an Access or SQL CE back end. Supported legacy applications and created a plug in system to develop new features on old applications.

University of California Riverside, Riverside, CA — Linux and Windows Systems Administrator

2000 - 2003

Maintained and developed the IT infrastructure for the UCR computer science department, including public computer labs, research labs, staff and faculty computers, and a server farm providing network services (Web, Mail, DNS, Windows Domains, NAS, etc.).

Developed and deployed/supported a disk-based backup system with a restore web front end in PERL. Developed a one-step lab installation method for deploying lab computers using Linux Mandrake and virtualized Windows under VMware.

EDUCATION

University of California Riverside, Riverside, CA — *B.S. Computer Science and Engineering*

1998-2002

Coursework in simulation, graphics, operating systems, networks, compilers, and algorithms.

Also completed graduate courses in data structures, graphics, and networking along with graduate research in the area of simulating physical properties of water and bubbles.

REFERENCES

Contact info provided upon request.

Jordan Bean — Senior Cloud Solution Architect at Microsoft

https://www.linkedin.com/in/jordan-bean/

John Rowan — Data Architect at ExxonMobil

https://www.linkedin.com/in/john-rowan-43b13bb/

Jim Boud — Senior Azure Data Architect at Cognizant

https://www.linkedin.com/in/jim-boud-0565a91/