

Experience

Amazon: Full-Stack Software Development Engineer

April 2022 - Present

Amazon Visualization Platform (AVP)

- Developed Amazon’s internal SCADA solution for visualizing live site data in Amazon Fulfillment Centers (FCs)
- Enhanced data collection and transformation layer that consumed raw events from Amazon workcells distributing (200,000 records/s average) for near real-time use cases
- Built live data backend using AppSync API to transmit relevant live data to user’s browser (up to XXX events/s)
- Integrated AVP with Amazon internal permissions solution to enable self-service permission management on Site Layouts and collections of Site Layouts from within AVP UI

Quattro Data Modeler

- Led development on UI/backend solution for building validating and deploying Amazon Machine Data Interface (AMDI) models for acquiring data from Programmable Logic Controllers (PLCs)
- Improved speed and safety of configuring data acquisition by reducing the need to reprogram PLCs to collect the 40,000 state/alarm data points for Material Handling Equipment (MHE) at FCs
- Developed the TypeScript implementation of the AMDI specification to define consistent TypeScript types for use in UI/backend applications and support runtime validation for users (using io-ts) to prevent deployment of inaccurate configurations

ExxonMobil: Full-Stack Software Developer

July 2018 - Present

Reservoir Management Data Environment

- Developed Angular front end and .NET Framework API for reservoir engineers to save forecast data as well as integrate it with volume and header data
- Supported Power BI dataflows which powered user-created visualizations and reports
- Built CI/CD pipeline in Azure DevOps to automatically update Azure Resources and deploy application for rapid development

NextPlan

- Led development on a system that consumes 30 million data points from legacy excel-based applications
- Automated financial forecast workflows as well as data visualizations and simplified communication between reservoir engineers, planners and managers
- Secured proprietary data with role-based access (Azure AD and OAuth 2.0)
- Designed and deployed the first Unconventional IT application in production Azure environment leveraging message queues and Azure webjobs to handle long running web requests

Master Data Integration - Master well data application

- Built the user interface for an API system which defined the single source of truth for well data within XTO (500,000 entity records from 11 source systems).
- Assisted data management team on API design to minimize long-term support for the application, which averaged 450 unique users each month

Education

Oklahoma State University – Stillwater, OK

Aug. 2014 - May 2018

Bachelor of Science, Electrical Engineering

GPA: 3.97

Bachelor of Science, Computer Engineering

Minor in Mathematics