Austin Markham

Software Engineer II

Email:
austintexas12@gmail.com
Phone: (256) 898 - 5973

EXPERIENCE

Optum — *Software Engineer II*

October 2022 - Present

Nothing yet. Kubernetes, docker, kafka, .net 6, mongo db, jenkins, and graphQL

Cuna Mutual — *Software Engineer I Contractor*

April 2022 - October 2022

Contributed to the continuous development and maintenance of internal web based applications. All applications are hosted in Azure and take advantage of the robust power of Restful API'S and the entity framework for easy database object management. The focus of my work has primarily been on backend API development for a new internal application that manages insurance settlements for insurance agents and underwriters. We use Visual Studio for all software development, Microsoft SQL Server Management Studio for database management, entity framework for backend database object management, Azure Devops for continuous integration, Azure Application Insights for real time metrics and logging, and a myriad of other technologies that aid in the development and maintenance of our applications. All backend work is tested using nUnit unit testing tools

Palisade Technologies — *Software Engineer I*

July 2021 - March 2022

Contributed to the continuous development of a real time radar simulation software for the United States Army using C++ and Ada. All software is developed on Red Hat Linux using various IDEs and all work is managed through Jira. This position requires a security clearance.

- Python experience
  - Creating and modifying binary parsing scripts. These scripts parse binary files into readable format that is then sent over UDP to various applications
  - Creation of python scripts to quickly test algorithms used in parts of the MEDIC application
- C++ / C experience
  - Making modifications to applications to support new object structures and add new features

SKILLS

.NET Framework

.NET 6

C#

C++

C

Python

SQL / SQL Server

Azure DevOps

Agile

NuGet

Git

Visual Studio

Jira

microservices

Linux RedHat

Kubernetes

Graph QL

Kafka

.net Rest API

EDUCATION

Mississippi State University *Software Engineering*

August 2014 - May 2019

Hexagon — *Software Engineer I*

August 2020 - June 2021

Contributed to the development of a SaaS web application, Hexagon Connect, that is used in city and regional infrastructure organizations (911 dispatchers, city government, police stations, etc.). This application is built off an in-house microservice framework hosted in Azure Service Fabric and contains 40+ microservices. Each microservice API is written solely in C# using the Visual Studio IDE. Agile project management using Azure DevOps is used extensively to develop and maintain the application.

Notable projects

- (5 months) Integration of Azure Application Insights Monitoring into all services. Creation of a framework in which to log information through Azure Application Insights within a logging library packed into NuGet packages that was implemented throughout the entire application. This feature is used every day by the entire team and upper management to monitor real time metrics, performance of the application, API responsiveness, and bug identification.
- (5 months) Creation of backend load testing tools for many of the microservices. No tools existed previously to create load on the system, as the API is used by external applications not native to Hexagon Connect (customer systems). The tools can be used to create a configurable amount of load on any part of the application to stress the system, test new backend and frontend features, identify bottlenecks and bugs, simulate real user load to prove to upper management and potential customers that the application can handle a required amount of load, and much more. The tools are all written in C#.

Diatherix — *Software Engineer I*

September 2019 - August 2020 (Full Time)

December 2019 - May 2020 (Part Time)

Contributed to the development, maintenance, support, and deployment of in house software that was used by the lab, billing department, sales team, and clients. All applications were developed in C# using the .NET Framework in windows forms using Visual Studio. MySQL databases were used to store all data used by the applications. All projects and web services are stored and pulled from Team Foundation Server

Notable projects

- User application to prefill and fax desired forms to clients
- Automatic pathogen reporting program that generates CSVs, HL7 files, and tiff images that are then sent to various state health departments via fax, email, and SFTP

AWARDS and Certifications

Eagle Scout

DoD Security Clearance

- Billing system application that is used to input patient information and bill to insurance, patients, and clients
- LIS program that encompasses everything from patient information storage to sample processing