

TARAKA ROHIT ADUSUMILLI

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EDUCATION

Master of Science in Computer and Information Sciences
University at Buffalo, The State University of New York

Aug 2022 - Jan 2024

EXPERIENCE

Software Engineer, UnitedHealth Group (Optum)
Hyderabad, India

Aug 2020 - Jul 2022

- Developed and upgraded healthcare applications focused on medical data analysis and healthcare payment integrity, which elevated claims processing accuracy and efficiency.
- Played a pivotal role in a Microsoft Azure-based project, employing ASP.NET Core and Azure Kubernetes Service to craft tools that identify and analyze potential healthcare claim overpayments, thus optimizing and streamlining refund and recovery processes.
- Cultivated a robust DevOps culture by establishing stable CI/CD pipelines with Jenkins and Azure DevOps, improving deployment efficiency and system reliability.
- Architected scalable solutions using Windows Forms and .NET Core, deployed on Azure Stack and Kubernetes, with operations backed by Microsoft SQL Server to ensure high availability and performance.
- Managed Microsoft SQL Server and SQL Server Integration Services (SSIS) for efficient data storage and seamless ETL processes. Skillfully leveraged Apache Kafka to facilitate real-time data streaming of refund claims, thereby boosting and enhancing system's responsiveness and operational efficiency.
- Championed Agile methodologies throughout the software development lifecycle, orchestrating sprints, iterations, and conceptual planning leveraging user stories to ensure efficient progression from initial concept to product release.
- Collaborated closely with cross-functional teams to implement several advanced filtering cases based on user feedback, driving a 20% improvement in claim filtering processes and enhancing user experience by enabling more flexible filtering options.

Tech Stack: Azure DevOps, ASP.NET Core, Apache Airflow, SQL Server Integration Services (SSIS), C#, Microsoft SQL Server, WinForms, .NET Framework, Apache Kafka, Docker, Microsoft Azure, Kubernetes

TECHNICAL SKILLS

Programming Languages: C#, Java, Python, JavaScript

Frontend Development: HTML, CSS, JavaScript, React, Angular

Backend Development: .NET Core, Flask, Express

Database Management: SQL (Microsoft SQL Server), NoSQL (MongoDB)

Cloud Technologies: Azure (App Services, Service Bus, DevOps), Google Cloud Platform

DevOps Tools: CI/CD Pipelines, Docker, Kubernetes, Jenkins, Git

PROJECTS

Photo Editor Web Application

Crafted a comprehensive web-based photo editor tailored for both amateurs and professionals. Implemented using React for a dynamic frontend and Django REST API microservices for the backend, hosted on Kubernetes. Features advanced tools for image editing, format support, and compression, with unique capabilities in passport photo creation and mosaic design, designed for an optimal user experience with a privacy-focused, intuitive interface.

Trademark Secure: Decentralized Trademark Management Platform

Created a blockchain DApp on Ethereum and creating NFTs for streamlined trademark management. Employed Solidity, GCP, MongoDB, and Infura to formulate scalable and secure smart contracts, safeguarding IP rights for over 500 digital assets.

Load It Up E-commerce Store

Led the full-stack development of an e-commerce platform as a student project, using Angular for the frontend and Django for the backend, supported by PostgreSQL. The platform handles over 10,000 products and features multilingual descriptions and a hybrid sales model combining traditional and subscription-based approaches. Key achievements include enhancing accessibility for non-English speakers and pioneering a software subscription service, improving user engagement and operational efficiency.

Pintos OS Enhancement

Revamped the Pintos operating system by designing an alarm clock function to eliminate busy waiting and a priority scheduler with nested priority donation to efficiently handle priority inversion. These improvements uprooted system performance and resource efficiency, demonstrating a 15% increase in overall system responsiveness.

Multi-Topic Information Retrieval Chatbot

Built an advanced multi-topic chatbot which handles inquiries across Politics, Environment, Technology, Healthcare, and Education, plus casual dialogue. Integrated Apache Solr for robust data indexing of over 1 million records and Flask for backend operations. Increased query accuracy through Logistic Regression classification and faceted search, increasing precision by 20%. Also, accomplished real-time performance monitoring using dynamic graphs.