Hema Srinadh Koganti

.Net Developer

+1(469) 850-3198 |hemasrinathkoganti@gmail.com | LinkedIn

SUMMARY

.Net Developer with **5 years** of experience in **.NET Core, React, Blazor, and cloud technologies (Azure, AWS)**. Experienced in **developing scalable web applications, RESTful APIs, microservices, and CI/CD pipelines** using **GitHub Actions and Azure DevOps**. Strong background in **C#, JavaScript, TypeScript, SQL Server, and Entity Framework**, with a focus on **performance optimization, security, and cloud integrations**. Passionate about **AI-driven solutions, automation, and enhancing user experience**. Proven ability to **collaborate in Agile environments**, solve complex technical challenges, and deliver high-quality software solutions.

SKILLS

Programming Languages: C# .NET, VB.NET, Visual Basic, C, C++, Java, PL/SQL, T-SQL.

Frameworks & Libraries: ASP.NET (4.5, Core 3.3, .NET 5), ADO.NET, AJAX, LINQ, Entity Framework, MVC, WCF, WPF.

Frontend Technologies: Angular (9), HTML, HTML5, DHTML, XML, XSLT, XSD, JSON, SOAP, XAML, Web Forms, Web Services, Win Forms, JavaScript, jQuery, TypeScript.

Database Management: SQL Server, MongoDB.

Cloud Technologies: Microsoft Azure (Azure CI/CD, ADLS, ADF, Synapse), AWS

Version Control & CI/CD Tools: Git, Team Foundation Server (TFS).

Testing & Automation: Unit Testing, Selenium Automation.

Reporting & Visualization Tools: SQL Server Reporting Services (SSRS), Power BI, Tableau.

Software Development Lifecycle (SDLC): Agile methodologies, Test-Driven Development (TDD), system analysis, and design.

EXPERIENCE

Software Developer | Safe Generations, USA   Jan 2024 – present

- Transitioned the frontend from **Python Flask** to **React** and **Telerik/Kendo UI**, using **TypeScript, JSON, jQuery, HTML, AJAX, JavaScript**, and **Hooks** to build web applications, while ensuring seamless **.NET Core 9 backend** integration and automated deployment with **Azure DevOps.**
- Developed, supported, and maintained a web application using **.NET Core v7,9**(backend), **React** (frontend), **RESTFUL API, Azure Cosmos DB, and MS SQL Server** (databases), leveraging a **microservices architecture**. Utilized **Git** for version control, **GitHub Actions** for CI/CD operations, and deployed through **Azure App Service and Azure Functions**.
- Developed and maintained C# web applications using **ASP.NET Core MVC**, **Entity Framework**, **LINQ**, **async/await**, **Dependency Injection**, **JWT**, **OAuth 2.0**, **Middleware**, **Unit Testing**, **Exception Handling**, **Serialization**, **Parallel Programming**, **Caching**, and **Configuration Management** with **Azure Key Vault** and **appsettings.json** for scalable, secure, and high-performance solutions.
- **Resolved 10+ bugs** in React.JS improving software quality by constructive feedback, improving code quality and reducing defects by 15%.
- **Tested UI controls** per business requirements, reducing validation errors by 35%. Enhanced customer **data handling**, improving data accuracy by 50%.
- **Utilized C# Reflection, Delegates and Events, Generics, and Multithreading** to inspect and dynamically interact with types at runtime, enabling flexible and adaptive systems**.**
- **Designed and implemented a RESTful API using .NET Core V7, 9** to integrate **OpenAI's GPT** models, enabling dynamic AI-driven responses such as multi-message completions and string generation. Implemented custom authentication and handled **JSON-based requests/responses** for various OpenAI models. Optimized API structure to support flexible model use and prompt handling.
- Designed and implemented automated **CI/CD** pipelines using **GitHub Actions** for continuous integration and deployment to **Azure App Services**. Reduced deployment time by 30% through automating **Docker container deployment** to remote servers.
- Applied knowledge of **fundamental data structures (arrays, lists, dictionaries) and algorithms in C#** to solve complex computational problems, optimizing for performance and memory usage.
- Evaluated **application design,** leading to a 20% increase in user satisfaction and usability. Ensured seamless **collaboration and code management, contributing** to a 10% increase in team productivity.
- **Optimized performance by 40% using Entity Framework**, resulting in faster data retrieval and processing. Integrated backend services with the user interface using **JavaScript and AJAX**, reducing integration issues by 20%.
- Implemented message streaming between micro services deployed in containers using Kafka.

Dot Net Developer | Disability Access Consultants LLC, USA   May 2023 – Dec 2023

- Developed, supported, and maintained Enterprise web application using **.NET Core** (backend), **Blazor V9** (frontend), **Azure Cosmos DB, and MS SQL Server** (databases), leveraging a **microservices architecture**. Utilized **Git** for version control, **Azure DevOps** for CI/CD operations, and deployed through **Azure App Service and Azure Functions**.
- Designed and effected over **6 RESTful APIs** to facilitate efficient communication between application components, leading to a 25% improvement in data retrieval speed and enhancing overall user experience.
- Developed dynamic and responsive forms in **Blazor** using **Razor Components**, enhancing user interactions and data validation for various web applications. Implemented state management, form validation, and data submission workflows to ensure efficient user experience and seamless backend integration.
- Well-versed in using **C#'s async/await pattern, tasks, and parallel programming techniques** to enhance application responsiveness.
- Generate and modified **15+ windows forms using Visual Studio 2019** for a web-based data intake application, resulting in a 30% increase in data entry efficiency and reducing user input errors by 20%.
- Developed a web application using **ASP.NET Core MVC, JavaScript, jQuery, HTML, CSS, and Telerik/Kendo UI** for the frontend and **SQL Server** for the backend. This project improved data processing speed by 40% and user satisfaction by 35%.
- Successfully **deployed APIs** to the production server, ensuring 99.9% uptime and reliability.
- Designed and developed database schema and written **stored procedures in SQL Server** – 30% rise in query reusability.

- Utilized C# language features such as LINQ, delegates, events, lambda expressions handling to streamline code and improve performance.
- Designed and implemented automated **CI/CD pipelines** using **GitHub Actions** for continuous integration and deployment to **Azure App Services**. Reduced deployment time by 30% through automating **Docker container deployment** to remote servers.

Software Developer | Infosys, India   Mar 2021 – Jul 2022
- Developed, supported, and maintained Enterprise web application using **.NET Framework** (backend), **React**, **Angular**(frontend), **RESTFUL API, MS SQL Server** (databases), leveraging a **microservices architecture**. Utilized **Git** for version control, **Azure DevOps** (CI/CD operations), and deployed through **Azure App Service and Azure Functions**.
- Developed and maintained C# web applications using **.NET CORE 5**, **ASP.NET Core**, **Entity Framework**, **LINQ**, **async/await**, **Dependency Injection**, **OAuth 2.0**, **Middleware**, **Unit Testing**, **Exception Handling**, **Serialization**, **Parallel Programming**, **Caching**, and **Configuration Management** with **appsettings.json** for scalable, secure, and high-performance solutions.
- Optimized integration performance by fine-tuning **API calls**, reducing latency, and improving overall system response time between **.NET** and **Pega**.
- Integrated **Splunk** into a web application for real-time log management, monitoring client-side and server-side errors, and enhancing application performance visibility.
- **Developed and tested** integration of **Machine Learning model** with **.NET core** Application for **Predictive Analytics**.
- Wrote 50+ new **unit tests**, increasing code coverage by 20% and ensuring robustness of the application. Provided initial mitigation for issues, later fixed with a standard solution, ensuring 100% client satisfaction.
- Design **SQL Stored Procedures, Views, and Functions, optimizing database performance** by 30% and enhancing data retrieval efficiency.
- Integrated **AWS OpenSearch** with **Dynamo DB and AWS CloudWatch**. And leveraged **OpenSearch clusters** analyzing log files and metrics.
- Developed a **RESTful API** in **.NET C#** using **HttpClient** for asynchronous retrieval and submission of **JSON-based** data.
- **Utilized generics** to create flexible and type-safe data structures and methods. Implemented **C# collections** for efficient data management.
- Automated infrastructure provisioning and management, leveraging **AWS** such as **EC2, S3, Lambda, RDS, and DynamoDB** through **IaC** practices to optimize scalability and availability.

Software Developer | K L University, India   Jan 2019 – Dec 2020
- Built a web platform using **.NET Core** and **Blazor server** to enhance lab accessibility and streamline student-instructor interactions.
- Integrated **AWS S3** for secure file storage and retrieval, enabling students to upload documents for verification and grading, and access lab materials on demand. Implemented **AWS Lambda functions** to handle file processing and automate backend operations, ensuring scalability and efficiency.
- Built a responsive and user-friendly interface with **Blazor** and developed an efficient backend using **.NET Core**. Improved resource accessibility for 200 students and streamlined grading processes, reducing administrative workload by 60%.
- Fostered collaboration and increased engagement through an integrated discussion board for students and instructors using **.NET Core and Blazor**. Built database schema and models for posts and comments using **Entity Framework Core**.
- Implemented **RESTful APIs for CRUD** operations and integrated them with the **Blazor front-end.**
- Used **Blazor** components for real-time interaction and data binding for seamless user experiences. Integrated authentication and authorization to secure user data and restrict access.
- Resolved numerous bugs and optimized code, significantly improving application stability and achieving highest uptime.
- Created **SQL stored procedure, Views, Functions** and enhancing data retrieval efficiency.

EDUCATION

Master of Science in Computer Science, University of North Texas, Texas, USA   **Aug 2022 – Dec 2023**

Bachelor of Technology in ECE, K L University, Vijayawada, India   **Aug 2017 – Feb 2021**

PROJECTS
Ransomware Detection and Mitigation System Using Asymmetric Encryption
- Developed an Intrusion **Detection System (IDS)** designed to detect and mitigate **asymmetric encryption-based ransomware** attacks.
- Implemented a **proactive defense mechanism** that monitors directory activities and immediately kills unauthorized processes that attempt to modify files.
- Utilized **Auditd** for logging system events and **Watchdog** for directory monitoring to alert users and prevent unauthorized file modifications.
- Developed an encryption module using both **AES and RSA algorithms** to demonstrate ransomware files encryptions.
- Integrated real-time alerts with a user authorization system that halts malicious activities, preventing encryption of critical files.

Tools used: Python, PyCrypto, Auditd, Watchdog, Tkinter on Ubuntu Linux.

Parallelizing the Random Cut Forest Classifier for Anomaly Detection
- Developed a parallelized version of the **Random Cut Forest (RCF)** algorithm for real-time anomaly detection in large time-series datasets, utilizing **MPI** for distributed computing to enhance efficiency and performance.
- Implemented strategies including **data partitioning**, **parallel model training**, **parallel prediction**, and **batch processing** to optimize the RCF algorithm for faster anomaly detection while reducing CPU and memory usage.
- Compared the performance of the parallelized RCF with the **Isolation Forest** algorithm, demonstrating superior speed and lower resource consumption, particularly in scenarios involving large datasets and real-time streaming data.
- Achieved significant improvements in execution time and **CPU utilization** with the **parallelized RCF** across different process configurations.

Tools Used: Python, MPI (mpi4py), Pandas, NumPy, Random Cut Forest, Isolation Forest, Ubuntu.

File Sharing System
- Developed a file-sharing web application using **Flask**, allowing users to upload files and share them via email.
- Integrated **AWS servi**ces such as **S3 Bucket** for file storage and **DynamoDB** for managing email and file metadata.
- Implemented **AWS Lambda** to automatically retrieve email addresses from **DynamoDB** when new files are uploaded to **S3 Bucket** and send a link to the uploaded file via email.
- Deployed the entire application on an **AWS EC2** instance for scalable and efficient performance. Ensured secure file handling, optimized application logic, and streamlined user experience for file sharing.