# Bharath Raju KM

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## **EDUCATION**

#### **George Mason University**

Master of Science in Data Analytics Engineering

#### **Atria Institute of Technology**

Bachelor of Technology in Computer Science Engineering

## **EXPERIENCE**

#### **Webmaster: George Mason University**

Nov 2023 - May 2025

- Managed the maintenance and performance of the DFOR and TCOM websites, ensuring 99.8% uptime and optimizing through monitoring and regular updates
- Designed and optimized UI/UX enhancements using Django, HTML, CSS, and JavaScript, boosting page load speed
- Optimized SQL queries, reducing execution time, refining data accessibility, and improving real-time reporting efficiency for stakeholders across business functions
- Maintained secure REST APIs for data integration, maximizing system interoperability and leading to a 60% reduction in manual data reconciliation efforts

#### **Software Engineer II: NTT DATA (Client: US Bank)**

**Apr 2022 - Jun 2023** 

- Shifted from software development to a DevOps-focused role, enhancing system reliability and automating 90% of deployment tasks using Jenkins and CI/CD pipelines
- Led infrastructure upgrades and migrations to AWS, contributing to a 30% reduction in deployment time and increasing platform uptime through Terraform and Docker
- Administered a Linux-based cloud environment, monitoring application efficiency, & resolving 95% of runtime issues
- Developed scalable microservices using Java and Spring Boot, advancing system functionality and reducing latency through streamlined architecture and caching

#### **Software Engineer 1: NTT DATA**

Oct 2020 - Apr 2022

- Designed enterprise applications using Java, boosting processing speed and decreasing latency by 15% through efficient code refactoring and architectural enhancements
- Developed API-based services, optimizing data flow, enhancing scalability by 30%, and managing higher traffic
- Deployed containerized applications using Kubernetes, ensuring high availability and reducing service downtime through automated scaling
- Implemented containerization and automated deployment using Docker, minimizing environment inconsistencies by 40% and accelerating deployment cycles with scripted automation

# **SKILLS**

Java

• C/C++

• Python/R

JavaScript

• SQL

TypeScript

Shell Scripting

Flask

React.js

• Node.js

• Selenium

• Next.js

AWS

GCP

Docker

Kubernetes

Terraform

Jenkins

• ETL Pipelines

• MongoDB

TensorFlow

• NLP

XGBoost

LightGBM

• KNN/CNN

• VS Code

Agile/Scrum

#### **PROIECTS**

#### ClimateGPT | Python, SQLite, MCP (Model Context Protocol), Docker, AWS EC2

Jan 2025 - May 2025

- Engineered a modular, asynchronous MCP server using Python, FastMCP, and SQLite, enabling real-time access to 15+ climate datasets via validated SQL queries
- Integrated structured JSON outputs with ClimateGPT LLM, boosting AI response accuracy by 30% and reducing hallucination through improved prompt engineering

## Brain Tumor Detection and AI-Powered Chatbot | TensorFlow, PyTorch, Flask, JavaScript Sep 2024 - Dec 2024

- Engineered deep learning models (VGG16, VGG19, DenseNet) for medical image classification, boosting accuracy to 95% and decreasing training time using TensorFlow
- Launched RESTful APIs with Flask, accelerating data retrieval by 30% and enhancing system scalability through efficient backend optimization and big data techniques
- Customized LLM for brain tumor chatbot, increasing response relevance by 40% and improving user experience