

Julia Grace Muddada

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SUMMARY

Graduate Computer Science student with proven expertise in **software development, cloud services, and system design**. Skilled in **Python, JavaScript, SQL, Flask, Node.js, and AWS**, with experience building and deploying applications from prototype to production. Strong foundation in **backend services, APIs, and application optimization**, with a track record of delivering reliable technical solutions.

EDUCATION

Wright State University

Master of Science in Computer Science

▪ CGPA- 3.7 | Analytics Club | CRU | Chi Alpha

Expected Graduation: December 2026

Dayton, OH

Andhra University

Bachelor of Technology in Computer Science and Engineering

▪ CGPA- 3.75 | The Communicons, Vice President - Education, Treasurer

September 2020 - May 2024

Visakhapatnam, India

EXPERIENCE

Software Developer Intern

CRU

May 2025 - July 2025

Orlando, FL

- Built an AI chatbot for the GodTools app using NLP and semantic search to recommend spiritual lessons based on user input
- Used Embeddings (text-embedding-ada-002) and FAISS for context aware content mapping, eliminating need for manual tagging
- Created structured datasets and trained matching logic to identify user intent and recommend tools
- Integrated the chatbot into web application via FASTAPI, deployed it on frontend.

Software Developer Intern

Geo Climate Risk Solution

March 2022 – December 2022

Visakhapatnam, India

- Engineered end-to-end Python pipelines for data cleaning, transformation, and exploratory analysis to uncover key trends and patterns
- Optimized database queries and designed efficient SQL schemas to enhance data retrieval speed and scalability
- Applied machine learning models to real-world datasets to generate predictive insights and support data-driven decision-making
- Leveraged Pandas, NumPy, Scikit-learn, and Matplotlib for feature engineering, statistical analysis, and clear data visualization

PROJECTS

Chatbot for UdeMy Course Recommender

Personal Project

May 2025 – July 2025

- Built an intelligent chatbot to recommend personalized UdeMy courses based on user questions and fields of interests.
- Implemented GPT-3.5 with OpenAI embeddings and FAISS similarity search to deliver accurate, real-time recommendations.
- Developed and deployed the backend with FastAPI and integrated it into a web interface for real-time user interaction.
- Deployed backend using FastAPI and designed the system for scalability and modularity, allowing expansion to additional course datasets.

Interactive Room-Clearing Training Tool

Distributed Computing

August 2024 – December 2024

- Created a web-based training platform simulating tactical room-clearing scenarios
- A gamified training platform simulating complex decision-making environments where users must identify and respond to threats in real-time
- The *Distributed* application includes multiple operational modes, simulating both aggressive and discriminative decision pattern
- Built using JavaScript with PlayCanvas and supported by cloud-based backend services on AWS to facilitate multiplayer interactions and real-time feedback

IoT-based Pothole Detection System

Senior Capstone

December 2023 – May 2024

- Developed smart monitoring system using ultrasonic sensors and GPS modules to identify and geolocate potholes with high precision
- Integrated real-time hardware data with a mobile-friendly interface for visualizing pothole locations and severity on live maps
- Leveraged Wi-Fi and REST APIs to transmit geospatial data to cloud storage (Google Sheets) for analysis and reporting
- Achieved 97% detection accuracy in field tests, enabling scalable deployment for urban road safety and proactive maintenance

SKILLS AND CERTIFICATIONS

- **Languages:** Python, R, Ruby on Rails, SQL, HTML, C
- **Frameworks & Libraries:** Flask, Node.js, PlayCanvas, Scikit-learn, Pandas, NumPy, Matplotlib
- **Tools & Technologies:** AWS, Git, FAISS, Tableau, Apache Hadoop, VS Code
- **Databases:** MySQL, MS SQL Server
- **AI/ML:** GPT-3.5, Embeddings, NLP, Context-Aware Retrieval, Multilingual Support, Supervised/Unsupervised Learning, Model Evaluation
- **Coursera:** Python for Data Science & AI; Java Android development; IBM Data Science Professional; Data structure in C
- **Microsoft:** MTA – Database Fundamentals; Azure AI Fundamentals