

# Jayawanth Rayakota Harnath

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## Education

### University of North Carolina

Masters of Science in Computer Science - Data Science

May 2025

### Certifications

- MongoDB Certified Associate Developer — AWS Certified Solutions Architect

## Experience

### Open Source Developer - Hackathons

Jan 2024 – Present

- Optimized Rocket.Chat queries, reducing execution time by 40% and API latency by 30%.
- Streamlined FitCheck App API integrations, cutting latency by 25% and boosting engagement by 15%.
- Enhanced TensorFlow Addons with a custom loss function, improving accuracy by 12% and fixing 5+ compatibility issues.

### Software Engineer - IBM

Nov 2022 – Dec 2023

- Automated machine learning workflows via Python/Flask APIs for IBM Db2 Warehouse, cutting manual efforts by 90% using IBM Watson Orchestrate.
- Built FastAPI microservices for IBM Watson Document Processing, boosting parsing accuracy by 40% and response times by 75%.
- Designed pytest frameworks with 95% code coverage, reducing post-deployment defects by 90%.
- Developed ReactJS dashboards integrated with IBM Cognos Analytics, accelerating decision-making by 20% for 5+ business units.
- Optimized ETL pipelines on IBM Cloud Pak for Data, reducing runtime by 30% and improving data quality by 15%.
- Streamlined CI/CD using Red Hat OpenShift and Tekton, cutting deployment time to 10 minutes and integration failures by 50%.

### Software Engineer - Kyndryl

April 2022 – Nov 2022

- Built scalable backend services with Spring Boot, handling 10,000+ users at 99.9% uptime.
- Improved ML recommendation accuracy by 18% and reduced training time by 25%.
- Optimized data pipelines, cutting ingestion latency by 40% for 1M+ users.
- Created ReactJS dashboards for 5+ business units, improving decision-making by 20%.
- Reduced pipeline runtime by 30% and improved data quality by 15%.

## Skills

**Programming** Data Structures and Algorithms (DSA), C, Java, Python, JavaScript

**Web Frameworks** Spring Boot, FastAPI, Next.js, REST APIs, Microservices

**Big Data/Cloud** Hadoop, PySpark, Hive, Sqoop, AWS, GCP, MySQL, MongoDB

**Developer Tools** Docker, Git, Google Colab, Anaconda, CUDA

## Projects & Research

### Cybersecurity Framework Implementation

- Developed and tested cybersecurity protocols using TCP/IP, VPN, and DNS, ensuring network security and data protection in alignment with Santee Cooper's focus on Cybersecurity.

### Photo App — ReactJs

- Developed a scalable React-based photo sharing application with MongoDB as the and Material UI for the frontend.

### College Bus Management System using RFID for Attendance and Covid-19 Monitoring

- Developed an IoT-based smart home healthcare support system for remote patient monitoring during Covid-19, reducing unnecessary hospital burdens.
- Designed and tested the system using heartbeat, body temperature, room temperature, O2, and max30100 sensors, ensuring real-time monitoring of patients.
- Coded and implemented the system, successfully integrating IoT-based tools for continuous patient care and remote monitoring.

### Qualifiers2Finals Application

- Created a Qualifiers2Finals application using Android Studio to automate the management of local Basketball and Volleyball tournaments, reducing manual workload for organizing, scheduling, and scoring.