NAGA ASWINI GANDHAM
Machine Learning Engineer

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EMPLOYMENT HISTORY

Capgemini | Full-Time | Nov 2022-Present | Bangalore,India

01/2024 – present

IKOn - Incident & Knowledge management Nano bot
Capgemini Internal

Sr Analyst | Python/ML Developer

· Developed and implemented an advanced Capgemini tool for recommending top ten knowledge objects and proposing top three solutions for known incidents, significantly enhancing problem management efficiency.
· Automated identification of top three potential solutions for incident details using clustering, Cosine and Jaccard text similarities, and Named Entity Recognition (NER) to improve recommendation accuracy.
· Integrated Generative AI with Local LLMs to transform ticket summaries into actionable resolutions, seamlessly converting them into knowledge objects.
· Established multitenant capabilities to enhance user experience.
· Streamlined deployment processes by implementing a comprehensive CI/CD pipeline utilizing Azure DevOps and Docker.
· Successfully deployed ML models on EC2 Linux servers through Jenkins and Azure Cloud Services integration.
· Created and managed task schedulers in windows and cron jobs in Linux environments for deploying models across various Capgemini accounts, facilitating intent prediction for ticket data.

Technologies used: PYTHON MACHINE LEARNING GEN AI LANGCHAIN NLP PANDAS LLM POSTGRESQL

09/2023 – 01/2024

RooCA - Root Cause Analyser
Capgemini Internal

Analyst | Python/ML Developer

· Developed a problem management tool to predict top cause codes and identify root causes of tickets using techniques such as Five Whys and Fishbone Analysis, ensuring permanent solutions and reducing ticket counts.
· Automated ticket clustering based on cause code confirmation, enhancing root cause analysis, enabling efficient Service Improvement Plans (SIPs) and long-term issue resolution.
· Enhanced ticket description analysis through advanced techniques including clustering, Cosine and Jaccard text similarities, and Named Entity Recognition (NER).
· Established robust multitenant capabilities to improve usability and user experience.

Technologies used: PYTHON MACHINE LEARNING PANDAS GEN AI POSTGRESQL

08/2023 – 01/2024

AutoSynthesis - Intent Prediction Tool
Capgemini Internal

Analyst | Python/ML Developer

· Developed an advanced intent prediction tool to accurately infer intents from text descriptions provided by users.
· Prepared training data using advanced techniques like Named Entity Recognition (NER), Topic Modeling, and Key Phrase Extraction to derive intents from unsupervised data, ensuring comprehensive data preparation.
· Implemented machine learning models including Support Vector Machine (SVM) and Random Forest to achieve high-accuracy intent predictions on test data.
· Ensured robust data management by storing results in a PostgreSQL database using Python, facilitating efficient data retrieval and analysis after each run for specific accounts.

Technologies used: PYTHON MACHINE LEARNING PANDAS SVM RANDOM FOREST NER SQL

11/2022 – 07/2023   **RooCA - Root Cause Analyser**   **Analyst | Java Full Stack Developer**
Capgemini Internal

· Enhanced data security by applying JPA queries for robust column-level encryption and decryption.
· Integrated OAuth authentication for the Feed Service, fulfilling specific client security requirements.
· Created comprehensive reports and a dynamic search feature to facilitate deeper data analysis and improve user engagement.

Technologies used: JAVA   SPRINGBOOT   HIBERNATE   REACT JS   SPRING DATA JPA   SQL

11/2022–Present   **Additional Projects & API Development**

· Developed an Excel to JSON conversion API to reduce reliance on third-party tools and streamline data processes.
· Created Ticket feed and log file monitoring APIs to maintain application health and performance.
· Automated data extraction from over 500 knowledge documents using an LLM model, significantly reducing manual effort for clients.
· Built a Secret Santa website to foster virtual interaction and engagement among colleagues, enhancing work-life balance.

EDUCATIONAL DETAILS

Rajiv Gandhi University of Knowledge Technologies – IIIT Srikakulam | Andhra Pradesh **|** India
B.Tech in Electronics and Communication Engineering | CGPA: 9.50 | Grad. 2022

Rajiv Gandhi University of Knowledge Technologies – IIIT Srikakulam | Andhra Pradesh **|** India
Pre-university course (Senior Secondary) | CGPA: 9.56 | Grad. 2018

St.Vincent Pallotti school | Andhra Pradesh **|** India
Secondary(10th grade) | CGPA: 10.0 | Grad. 2016

PROUD OF

🏆 **Achievement** ✎
Selected for NASA Ames Space Settlement Contest 2018 for the project **"Sarvaayush"**, securing 3rd place in the Grade 11 category.

Project Sarvaayush:
The NASA Ames Space Settlement Contest is an annual competition that invites students from around the world to design permanent orbital settlements and human habitation beyond Earth.
Sarvaayush is one of such orbital settlement which includes:

· **Comprehensive Settlement Plan:** A detailed blueprint of the space settlement, showcasing innovative structural and functional designs.

· **Advanced Life Support Systems:** Good technologies for air purification, water recycling, and sustainable food production.

· **Health and Safety Measures:** Robust radiation shielding, medical facilities, and emergency protocols.

· **Community Integration:** Thoughtful designs to promote social interaction, cultural activities, and mental well-being.

🌸 **Notable Awards/Certifications**
· **Prathibha Award (2016)** for achieving top grades in SSC.

· **Qualified in Dakshin Bharat Hindi Prachar Sabha Exams** (Prathmic to Visharad Poorvarad) with first-class distinction.

· **Promoted within one year** of joining the project, recognized as the best employee based on positive feedback.

LANGUAGES

Telugu   Proficient **|** Mother tongue

English   Proficient

Hindi   Intermediate

INTERESTS

Research
Music
Exploring new things
Poetry
Drawing

☑ Design & Documentation tools

draw.io ●●○○○

Atlassian Confluence & Jira ●●●○○

☑ Programming & Scripting languages

Java ●●●○○

Machine Learning ●●●○○

Python ●●●●○

JavaScript & TypeScript ●●●○○

Generative AI ●●●○○

NLP ●●●○○

☑ Markup languages

HTML ●●●●○

CSS ●●●○○

LaTeX ●○○○○

☑ Platforms and server technology

Tomcat ●●○○○

Linux ●●●○○

☑ Frameworks & libraries

Spring & Spring Boot ●●●○○

React JS ●●●○○

JDBC ●●●○○

☑ Development tools

IntelliJ IDEA ●●●○○

Spring Tools suit ●●●○○

VsCode ●●●○○

Git ●●●●○

Jenkins ●●●○○

Anaconda ●●●●○

As a versatile developer with a good foundation in Java and a rapid transition to Python and Machine Learning, I have proven my ability to quickly learn and adapt. With hands-on experience across Backend, Frontend, Database, and AI technologies, I've successfully implemented projects in Java Spring Boot, React, Python, Machine Learning, and Generative AI. Committed to continuous learning, I excel in leveraging advanced technologies and handling diverse roles, from feature development to deployment and support. I am passionate about growing in the field of Machine Learning and Generative AI, aspiring to build innovative applications that drive technological advancement.