Y SARVANI SWAPNA PRIYA

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EDUCATION

Central University of Karnataka

Gulbarga, India

Integrated MTech in Information and Communication Technology; CGPA: 8.6

Aug 2017 - June 2022

Bengaluru, Karnataka, IN

SKILLS

Languages: Java, Python

Frameworks: Spring Boot, Pandas, Numpy, Matplotlib
 Tools: Docker, MS Office, MATLAB, MySQL

Platforms: Jupyter Notebook, Visual Studio Code, Intellij IDEA

Soft Skills: Public speaking, People Management, Excellent communication

WORK EXPERIENCE

SOFTWARE ENGINEER | TARENTO

Aug 22- Present

Spinbase

- Led analysis and proposed a Language Model (LLM) Solution for client Spinbase, :conducting thorough assessments and strategic analysis.
- Analyzed the client's existing system and requirements, identifying opportunities for improvement and integration of advanced language models.
- Conducted end-to-end analysis from benchmarking to deployment using BART, T5, Mistral, and Llama models, evaluating
 performance metrics, scalability, and alignment with client objectives.
- Provided detailed documentation including technical specifications, competitive analysis, and cost assessments (GCP and Hugging Face), optimizing resource allocation and maximizing ROI.
- o Recommended GPU specifications for training and embedding models, ensuring efficient implementation and scalability.
- Presented findings and strategic recommendations facilitating informed decision-making and project advancement.
- o Stack: Python, BART, T5, Llama, GCP, Hugging Face.

• THOR for CX

- Led the development and integration of the THOR for CX system, incorporating advanced technologies to enhance customer service interactions.
- Responsible fore development of a fine-tuned classifier model using FAISS, trained on a large dataset of FAQ data, achieving robust accuracy in understanding customer inquiries.
- Integrated OpenAl APIs to enhance natural language understanding capabilities, enabling dynamic changes to orders based on customer requests.
- Implemented a Human-in-the-Loop framework, allowing seamless interaction between automated services and human agents for complex queries and exceptions.
- Designed and implemented a flexible router mechanism to efficiently divert requests through various services, optimizing response times and implemented everything in the span of a week.
- Managed stakeholder meetings and calls to gather requirements, provide project updates, and align technical solutions with business objectives.
- o Stack : Python, FAISS, OpenAI API's

Al Models for Predictive Maintenance

- Developed and implemented an advanced AI model for predictive maintenance, utilizing machine learning techniques in Python and various libraries to analyze extensive IoT data spanning 5 years.
- Spearheaded the end-to-end development lifecycle: from data preprocessing and feature engineering to model selection, training, and deployment.
- Employed a variety of regression models and time series analysis techniques, including ARIMA, to forecast maintenance requirements with high accuracy.
- Integrated an alert service to notify stakeholders in real-time based on model predictions, ensuring proactive maintenance and minimizing downtime.
- Documented methodologies, findings, and insights to facilitate knowledge sharing and continuous improvement across the organization.
- o Stack: Python, Numpy, Scikit-learn
- Tech Migration: Open stack to Azure stack
 - Spearheaded the migration of a Java Spring Boot application from OpenStack to Azure Stack, achieving a 30% reduction in downtime and a 20% cost saving.
 - Seamlessly integrated Azure Event Hubs for event streaming, replacing Kafka, for optimized performance.
 - Implemented Azure Application Insights and migrated to Azure Elastic Search, enhancing application response time by 65% and reducing infrastructure costs by 15%.
 - o Led a collaborative effort with developers and DevOps engineers, ensuring a smooth transition through thorough testing and

- troubleshooting (resolved 90% of migration issues).
- Developed comprehensive documentation and training sessions, resulting in a 90% increase in team efficiency for managing the Azure-hosted application.
- o Stack: Azure Event Hubs, Azure application Insight, Sendgrid
- Management Information Systems (MIS)
 - Was responsible for architecture and Implementation of a Kafka pipeline using Java and Spring Boot to process data records for the analytics platform, enabling layered data enrichment for deeper insights.
 - o Analyzed the data and to delivered user and role tailored visualizations, leading to a 95% surge in user satisfaction.
 - Integrated Everit JSON Schema validator & JOLT Transforms for validation and transf, resulting in a 70% reduction in invalid data entries and a 90% improvement in data accuracy.
 - Maintained a 95% issue resolution rate through daily support calls, ensuring timely deliveries of solutions.
 - o Received consecutive quarters of Spot Awards and a Team Impact Award in recognition of outstanding contributions.
 - o Stack Java, Spring Boot, Kafka, Elasticsearch, Docker, Everit JSON Schema Validator, JOLT Transforms.
- Employees Geospatial Mapping
 - Developed a cutting-edge geospatial employee mapping solution tailored for the Indian market using Java, Spring Boot, Node.js, and Leaflet.js.
 - Enhanced data analysis through the integration of Scala, Flink, and regex validations, leading to an 80% improvement in targeted employee outreach strategies.
 - o Stack: Java, Springboot, Kafka, Elasticsearch

PROJECTS

Feasibility study of drones for reliable environmental sensing LINK

July 21- May 2022

 Investigated the feasibility of using sensor-embedded drones to create a drone-assisted wireless sensor network for environmental monitoring. Developed a model in MATLAB to simulate and analyze the effectiveness of this approach.

Image Processing based Photo management system | LINK

September 23- October 2023

- o Designed and implemented an open-source system using Python to automatically sort and deblur images.
- Pioneered the integration of a Convolutional Neural Network (CNN) with deep learning for image deblurring, achieving an accuracy of 88%.

Personal Portfolio | LINK

July 23- August 2023

- o Developed a personal portfolio website showcasing skills and experience.
- Utilized a modern technology stack including HTML, CSS, JavaScript for the front-end and Node.js, Mongoose, and MongoDB for the back-end, including an SMTP mail sending system for contact functionality.

CERTIFICATES

Introduction to Generative AI (Google Cloud) | CERTIFICATE

April 2024

o Gained expertise in advanced AI concepts, generative models, and practical applications of AI technologies.

Data Analysis with Python (FreeCodeCamp) | CERTIFICATE

Nov 2023

Acquired expertise in procedural programming paradigms and associated logical concepts, enhancing capabilities.