K S Abhiram

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Education

PES University — Bangalore, India
B.Tech in Computer Science CGPA - 8.12 — *Dec 2021 – 2025*

- 1x Professor MRD Scholarship Awardee for being in the top 20% of the batch
- 3x DAC Scholarship Awardee for maintaining cgpa over 7.75

Karkala Jnanasudha PU College Ganit Nagar — Udupi, India
State Board (PCMS) - 100% — *June 2019 – October 2021*

- KCET Rank 969
- JEE Main 96.66 percentile

Jagadheeshwara English Medium High School Kalasa — Chikkamagalur, India
State Board - 99.36% — *June 2017 – May 2019*

Projects

InstaEngage: Instagram Engagement Analysis Platform

- InstaEngage is an advanced analytics platform designed to evaluate and optimize social media engagement for major Instagram accounts
- Leveraged Apache Spark for distributed data processing and analytics to handle large-scale engagement data.
- Employed Apache Kafka for real-time data streaming, ensuring timely insights and updates.
- Utilized SQLite for storing and managing processed engagement data efficiently.
- Developed an interactive dashboard using Streamlit to visualize and explore social media engagement metrics dynamically.

DiscoverForge :Forge Ahead, Discover More

- Automated B2B software product listings on G2 using web scraping, real-time data streaming, and workflows to enhance visibility in low-penetration regions.
- Utilized BeautifulSoup and Selenium for web scraping data from primary sources like software directories, official pages, tech news sites (ProductHunt, Slashdot, Betalist), and social media (Twitter, LinkedIn), including TechAfrica for low-visibility regions.
- Implemented web scraping, real-time data streaming with Apache Kafka, and managed data with MongoDB, Docker, and Kubernetes.
- Leveraged G2 API and Large Language Models (LLMs) for advanced data processing and API integration.

Enhanced RAG using KG and Collapsed Tree Approach

- Built a comprehensive RAG , enhancing the textual output to an user's queries
- Implemented a Collapsed Tree Approach to improve understanding and connections between disjoint but related PDFs uploaded by users.
- Utilized Neo4j as a secondary storage system to track and manage all crucial semantics
- Created more detailed and precise responses to user queries by leveraging both databases for optimal results.

Drug Bio-activity Prediction - Alzheimer

- Pioneering drug bioactivity prediction project targeting Alzheimer's disease, employing a range of machine learning models including Random Forest Regressor, Support Vector Machines, and Gradient Boosting
- strong showcase of data preprocessing, feature selection, and model optimization to predict drug effectiveness
- Successfully trained and compared multiple machine learning models to identify the most accurate and interpretable model for bioactivity prediction
- This project contributed valuable insights into potential drug candidates, showcasing proficiency in computational biology, machine learning, and the ability to address critical healthcare challenges

Technical Skills

Languages and skills: Python, SQL, Neo4j, Apache Spark, Apache Kafka, MongoDB , Kubernetes , Docker
Familiar Libraries: Scikit-learn, LangChain, Keras, Pandas, NumPy, Seaborn, OpenCV, Mediapipe and few others

Extra Curricular

Nexus mentor and member of EVM

- Mentored the Nexgen Hackathon, guiding teams in the AI/ML domain, which resulted in a highly successful event. Provided expert support and insights, significantly enhancing participants' experience and project outcomes.
- Successfully orchestrated an engaging full day AI-ML hackathon that attracted the participation of over 150 individuals. The event was hosted exclusively to give AI-ML students a great insight on kaggle and problem solving in AI-ML domain .

Hackathons

- Participated and got in top 10 of HashCode hackathon for a project on AI-based nutrition recommender
- Participated and got in top 10 of G2 hackathon for the above mentioned project DiscoverForge

Mentored at RAPID lab

- Mentored a team to develop a real-time golf swing analyzer using OpenCV and Mediapipe, providing instant feedback on player posture and swing mechanics.
- Integrated an SVC model within the system to predict and correct movements, enhancing player performance through continuous real-time analysis.