RAGHAVENDER REDDY SRIPATHI

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SUMMARY

Software and Data Engineer with 2+ years of experience in designing and optimizing high-quality software and data solutions. I am proficient in Python, SQL, Java, and ETL processes, with expertise in machine learning, cloud computing (AWS, Azure), and data visualization (Tableau, Power BI). I am skilled in developing RESTful APIs, database optimization, and microservices architecture, leading to enhanced system efficiency and scalability. Passionate about leveraging data analytics and automation to drive business insights and streamline operations. Adept at collaborating in agile environments, mentoring junior developers, and implementing CI/CD pipelines to improve deployment workflows.

EDUCATION

University of North Texas, The State University of Texas *DENTON, TX*
Master of Science in Computer Science, CGPA: 3.54/4.0 *August 2022 – December 2023*
Courses: Computer Algorithms, Machine Learning, Information Retrieval, Computer Networking, Graph Theory, fundamentals of AI, Computer Architecture, Big data, Software Engineer, Data Analytics.

CMR Technical Campus, Hyderabad *August 2017 – sept 2021*
Bachelor of Engineering in Electronics and communication Engineering.
Courses: Computer programming in C, Network Analysis, Analog Electronics, Electrical Technology, Control systems, Analog communication, Operating systems, VLSI Design, Java programming, Computer Networks, Digital image processing, Digital signal processing, Microprocessors and microcontrollers.

TECHNICAL SKILLS

Programming Languages	Python, SQL, C, C++, Java, R-Programming.
ML/DL Libraries	Scikit-learn, NumPy, Pandas, Matplotlib, SciPy, Keras, TensorFlow, OpenCV, Pytorch.
Technical Tools	Tableau, Power BI, Spark, PySpark, Jenkins, Git, Wireshark.
Cloud Technologies	AWS, Microsoft Azure, Redshift, S3, SageMaker.
Web-Applications	HTML, CSS, JavaScript.
Databases	SQL, MySQL, PostgreSQL, MongoDB.
IDE	PyCharm, Visual Studio, IntelliJ IDEA, Android Studio.
Game Engines	Pygame, Pyglet, Panda3D, Ursina.

WORK EXPERIENCE

Upen group Inc.
Software Engineer *Irving, Texas | Feb 2024 – Present*

- Produced and managed large-scale training datasets for machine learning (ML) models, ensuring high data quality and scalability for production pipelines.
- Participated in ML model development using Python, focusing on data preprocessing, feature engineering, and evaluation to support data-driven product decisions.
- Developed and maintained backend microservices using Python and Node.js, integrating ML services and RESTful APIs to support dynamic, scalable applications.
- Built interactive interfaces and tools in TypeScript and React to facilitate human-in-the-loop data labeling workflows, improving label generation quality and speed.
- Collaborated on projects involving LLMs/GenAI, contributing to prompt engineering, fine-tuning, and evaluation for prototype development.
- Conducted performance testing and model inference benchmarking, leading to a 30% improvement in ML pipeline responsiveness.
- Led agile teams and coordinated sprint deliveries, ensuring timely integration of ML components into production environments.

- Implemented CI/CD pipelines using Jenkins and GitHub Actions, automating model training, deployment, and rollback mechanisms.
- Mentored junior developers and data engineers, providing guidance on ML project best practices, model deployment, and reproducibility.
- Authored comprehensive technical documentation and onboarding materials to support the reproducibility and maintainability of ML workflows.

Pupil Share-Software

Data Engineer   *Hyderabad, India | sept 2021 – June 2022*

- Designed and maintained ETL pipelines using Apache Spark and Apache Airflow, optimizing data processing.
- Built data storage solutions using AWS Redshift, S3, and data lakes, ensuring efficient data retrieval and scalability.
- Cleaned and transformed datasets using Python (Pandas, NumPy**)**, improving data quality and integrity.
- Worked with SQL and NoSQL databases (PostgreSQL, MongoDB, Amazon RDS**)** to store and manage structured and semi-structured data.
- Automated data workflows using orchestration tools like Airflow to streamline processes.
- Monitored data infrastructure performance and implemented optimizations to reduce processing time.
- Assisted in deploying ML models in AWS SageMaker, supporting cloud-based model inference.
- Implemented data security and access controls, ensuring compliance with industry standards.
- Built dashboards and reports using Power BI/Tableau, enabling data-driven decision-making.
- Monitored data pipelines and performed routine maintenance to ensure systems operated efficiently and effectively.

Tech Stack: Object-Oriented Programming (OOP), JavaScript, HTML, Software Development, Data Structures, Python, Java, Node.js, REST APIs, ETL.

PROJECTS

- **Customer Segmentation and Lead Optimization:** Analyzed customer data to segment users based on behavior and demographics using Python (Pandas, Scikit-learn) and SQL.
- **ETL Pipeline for Sales and Marketing Analytics:** Built and maintained ETL pipelines using Apache Spark and Apache Airflow to automate data ingestion and processing for sales and marketing teams.
- **Financial Data Dashboard Development:** Extracted and processed data using SQL to create real-time visual reports for executives, aiding data-driven decision-making.
- **Automated Testing Framework:** Built an automated testing framework using Selenium and Python, increasing test coverage and reducing manual testing time by 50%.
- **RAG-based Internal Chatbot for Property Data:** Developed a Retrieval-Augmented Generation chatbot using LangChain, Pinecone, and FastAPI to provide accurate answers from internal documentation.
- **Text-to-Image Generator for Interior Design:** Trained a diffusion model using Hugging Face and PyTorch to generate room designs from text prompts, enabling rapid visual prototyping.
- **Distributed Systems Research:** Conducted research on enhancing training performance and robustness of distributed systems for IoT-based robotics applications.
- **Learning Management System (LMS):** Led the design and development of an LMS that organized educational courses, training resources, and learning programs. Enhanced user experience with tracking, reporting, and automation functionalities, advancing e-learning through practical software applications.
- **Hospital Length of Stay Prediction:** Created a machine learning model to predict hospital length of stay using Decision Tree, Random Forest, KNN, SVM, and Logistic Regression algorithms.

CERTIFICATIONS

- Programming for Everybody (Python).
- Deeplearning.AI.
- Internet of Things workshop.
- Fundamentals of Analog electronics.