SAI KRISHNA MANICKYAM

Software Engineer

+1 (330)-554-6001 • saikrishnam692@gmail.com • Kent, OH

EDUCATION

Master of Science in Computer Science 12/2024
Kent, Ohio Kent State University
Relevant Coursework: Adv Database System Design, Machine Learning and Deep Learning, Design and Analysis of Algorithms, Information Visualization, Big Data Analytics, Foundation of AI
Bachelor of Technology in Electronics and Communication Engineering 4/2019
Visakhapatnam, India Gayatri Vidya Parishad College of Engineering (Autonomous)

SKILLS

Programming & Analytics: Python (Pandas, NumPy, Scikit-learn, PySpark), SQL (Oracle, MySQL), Hive, TensorFlow
Machine Learning & Modeling: Predictive Modeling, Statistical Analysis, Deep Learning (ResNet-50, U-Net, LSTM)
DevOps & Automation: Jenkins, Ansible, CI/CD pipelines, Bitbucket, IBM Cloud (Db2, Object Storage, Cloud Functions)
Visualization & Prototyping: Tableau, Power BI, Matplotlib, Seaborn
Soft Skills: Problem Solving, Attention to Detail, Communication, Teamwork

RELEVANT WORK EXPERIENCE

Database Administrator, Kent State University, Kent, Ohio 08/2023-12/2024

- Analyzed and optimized large datasets to derive actionable insights, improving data accessibility and efficiency by 30% using **Python** and **SQL**.
- Designed and maintained relational database schemas, ensuring system reliability and scalability.
- Developed automated data processing pipelines to streamline data preparation for advanced analytics and machine learning models.

Software Engineer, Wipro Technologies, *Hyderabad, India* 05/2019 – 08/2021

- Engineered **CI/CD pipelines** with **Jenkins**, reducing deployment time by 35% and increasing productivity.
- Reduced data handling time by 30% by automating **XML** parsing and database integration tasks with **Python** scripts.
- Improved scalability by designing **RESTful APIs** and deploying microservices with **IBM Cloud** Functions and **API Gateway**.
- Achieved 30% improvement in database interaction efficiency by developing and optimizing **Oracle SQL** scripts based on user requirements.
- Optimized machine learning **pipelines**, integrating predictive models for transaction analysis, achieving a 15% improvement in accuracy using Python and Scikit-learn.
- Enhanced data processing speed by 40% through automated workflows and **Tableau** visualizations for energy data analysis.
- Migrated large-scale data to IBM Cloud Object Storage, improving accessibility by 25% using **PySpark**.
- Achieved 20% reduction in application response time by engineering Python applications with **Django**, focusing on performance and maintainability.
- Enhanced data retrieval speed by 40% by leveraging Pandas for time series and tabular data analysis.

Software Engineer Intern, Wipro Technologies, *Hyderabad, India* 01/2019 – 04/2019

- Prototyped predictive models for transaction analysis using Python and **Scikit-learn**, achieving a 15% improvement in data processing accuracy.
- Designed RESTful web services and streamlined cross-platform data exchanges, reducing latency by 25%.
- Optimized data extraction processes with **PyQuery**, achieving a 20% reduction in processing time.

PROJECTS

Fraud Detection Model for Payment Transactions: 10/2021
Tools and Software Utilized: SQL, PySpark, TensorFlow, Hadoop, Python,
Developed and deployed machine learning models for detecting fraudulent transactions, leveraging PySpark, TensorFlow, and Hadoop. Improved fraud detection rates by 18%.
Medical Image Analysis: 12/2021
Tools and Software Utilized: ResNet-50, U-Net, TensorFlow, Python, Pandas
Designed deep learning pipelines using ResNet-50 and U-Net architectures for medical image classification and segmentation. Delivered 90% accuracy in pneumonia detection.
Web-Based Data Visualization Platform 10/2022
Tools and Software Utilized: Python, K-means, Scikit-learn, Tableau
Implemented K-means clustering to analyze binary sensor data for smart home applications, achieving 83.4% accuracy in activity recognition.
Heartbeat Sound Classification and Segmentation 05/2023
Tools and Software Utilized: LSTM, Python, TensorFlow, Librosa, Pandas
Developed an LSTM-based pipeline for heartbeat sound analysis, achieving 92% accuracy in early heart disorder detection.

VOLUNTEER EXPERIENCE

- Member of Rotaract Club of Vizag Metro (2016), organized events including a breast cancer awareness marathon and school painting competitions and volunteered in blood donation and book distribution for orphans.