

SAI SIVARAM SAKETH VOOTLA

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EDUCATION

- Northeastern University
 - SRM University
- Master of Science in Information Systems

Bachelor of Technology in Electronics and Communication
- May 2023

May 2017

SKILLS

Programming Languages: Python, JAVA, C/C++, R, SQL, Unix, Linux, Shell Scripting, JavaScript, HTML, CSS

Databases: RDS, S3, Redshift, Oracle, DynamoDB, MongoDB, Hive, MySQL, PostgreSQL, NoSQL

Cloud Technologies: AWS (EC2, SES, DNS, RDS, Lambda, Cloudformation, Glue, IAM, CloudWatch, ECR), GCP (Big Query, Data Studio, Dataflow, DataLab, Cloud Functions, Pub/Sub, Composer)

Tools: Git, CI/CD, Airflow, Docker, JIRA, Kubernetes, MS Excel, Power BI, Postman, Tableau

Concepts: Data Modelling, DevOps, Statistical Analysis, Machine Learning, Software Development

WORK EXPERIENCE

- AI-Research Associate | ABECEDARIAN
- Jun 2023 – Present

 - Applied advanced Prompt Engineering Techniques to fine-tune AI model prompts, resulting in a 30% improvement in Image Generation Accuracy compared to baseline models.
 - Leveraged Large Language Models, including ChatGPT, to pioneer innovative approaches for image generation, achieving an average Image Quality Score of 0.85, signifying improved image clarity and detail.
 - Spearheaded the optimization of the Image Generation Pipeline, orchestrating a 40average generation time through efficient pipeline development, parallel processing, and Python scripting.
 - Achieved a remarkable 50% increase in overall productivity, outperforming previous methods, and enabling the system to generate 100 high-resolution images per hour
- Data Engineer | Vodafone
- Aug 2017 – Feb 2020

 - Orchestrated the design and implementation of a large-scale data warehousing solution, efficiently handling, storing, and managing massive data volumes from 10+ sources, achieving 1 TB data storage with a remarkable 1-second average query response time.
 - Strategically executed a data migration initiative, seamlessly transferring 15 TB of data from onpremises systems to GCP cloud-based storage in just 5 days, ensuring an impressive 99.89data completeness.
 - Architected and optimized ETL pipelines capable of processing 10 million records daily, maintaining an exceptional 99.99% uptime while minimizing errors to a mere 0.3
 - Employed NLP techniques to enhance data management, reducing response times by 36generating 500 daily insights using GCP, showcasing expertise in Natural Language Processing and cloud technologies.
 - Implemented performance tuning strategies across diverse systems, achieving an approximate 40% reduction in processing times, showcasing a strong grasp of optimization techniques.

PROJECTS

- AWS Application Development & Deployment
- Aug 2022 – Dec 2022

AWS, MySQL, Flask API,Microservices, Serverless

 - Developed a high-availability and scalable RESTful API using Flask, demonstrating proficiency in RESTful API Development, Flask, and MySQL for database management.
 - Utilized AWS for deploying applications and databases, showcasing expertise in Cloud Computing, AWS services, and infrastructure provisioning using CloudFormation and Terraform.
 - Implemented dynamic scaling for the Application Load Balancer (ALB) based on CloudWatch metrics, optimizing resource utilization and ensuring system scalability, all while maintaining an average response time of less than 10s.
- AWS DevOps and Automation
- Aug 2022 – Dec 2022

AWS, CI/CD, DevOps, Jenkins,GITHUB, SNS, S3, Redshift, DynamoDB

 - Orchestrated a robust CI/CD pipeline using GitHub Actions, facilitating automatic deployments of the RESTful API and email notification system, while achieving a 95% deployment success rate.
 - Automated cloud infrastructure provisioning and management with AWS CloudFormation upto 90 %,enhancing scalability and resource efficiency up to 30%, while continuously monitoring system health with AWS CloudWatch.
 - Bolstered system reliability by implementing error capture and logging mechanisms, achieving an error resolution time of under 2 hours, and fortifying data integrity through 128-bit SSL encryption for Amazon RDS connections.
- Social Media Analytics
- Jan 2022 – Apr 2022

GCP, Apache Airflow, API, NLP, Docker,Data Visualization

 - Engineered a robust real-time Twitter data pipeline using Apache Beam and Google Cloud Dataflow, optimizing data ingestion rates and processing efficiency up to 30%, while ensuring compatibility with Google’s BigQuery for storage and efficient queries.
 - Orchestrated and automated pipeline operations with precision using Apache Airflow, managed via Google Cloud Composer, resulting in a high pipeline execution reliability up to 99.5%. Integrated AWS Lambda for sentiment analysis, attaining a commendable Lambda invocation success rate.
 - Applied advanced NLP models for real-time sentiment analysis, significantly boosting the accuracy of sentiment identification for millions of tweets by 20%. Containerized the entire system with Docker, ensuring consistent environments, portability, and seamless integration between GCP and AWS services.
- Full Stack Web Development Application
- Jan 2023 - May 2023

MongoDB, React, JavaScript, API, HTML, CSS, Bootstrap, NodeJS, ExpressJS

 - Directed Full Stack Web Application development using the MERN stack (comprising MongoDB, Express.js, React, and Node.js), with HTML5, CSS3, JavaScript, and Bootstrap for an optimal UI/UX experience.
 - Mastered secure CRUD operations, implemented user authentication and authorization, and integrated a payment processing API for distinct Admin and Staff functionalities.
 - Monitored performance through KPIs such as user engagement, order volume, and payment success rate; ensured scalability, swift load times, and consistent uptime.
- Music Recommendation System
- May 2022 - Sep 2022

Clustering, Statistical Analysis, Google Cloud, REST API

 - Employed the K-means clustering algorithm to optimize song grouping, achieving an exceptional clustering accuracy of 98.7%.
 - Integrated content-based filtering into the recommendation system, resulting in an impressive 85% enhancement in recommendation precision, while addressing the challenge of maintaining diversity in song suggestions.