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Education

National Institute of Technology, Karnataka

Master's in Communication Networks

Aug 2018 - Jun 2020

CGPA: 8.3/10

Ramaiah Institute of Technology, Bengaluru

B.E in Electronics and Communications

June 2013 - Jun 2017

CGPA: 9.0/10

Relevant Coursework: Object Oriented Programming, Data Structures and Algorithms, Database design with PostgreSQL, Python scripting for DevOps, AWS cloud essentials.

Work Experience

Dell Technologies, Bangalore

June 2019 - February 2024

Software Engineer II

- Contributed to the design and enhancement of RESTful APIs for the PowerProtect agent service using Python, Web services in Flask and FastAPI enabling seamless discovery, protection, and restoration of application assets by ensuring efficient handling of API requests.
- Integrated and Utilised SQLite for storing metadata and configurations related to backup operations, ensuring quick access and low overhead for the agent service operations.
- Worked on Elasticsearch-based indexing service for rapid search and retrieval of backup metadata, significantly improving operational efficiency and data access speed.
- Enhanced the app-agent Oracle code base, reducing duplication by 40% and improving code maintainability and operational efficiency.
- Implemented centralized backup and restore functionalities for various assets such as Oracle databases and file systems, integrating with the PPDm agent service to ensure reliable and efficient data management.
- Designed and executed automation libraries by creating Python-based automation scripts for PPDm lifecycle management, significantly reducing manual intervention in backup, recovery, and upgrade processes, enhancing efficiency by 50% and expanding test coverage by 80%.
- Led the development of Python-based automation pipelines utilizing Jenkins for CI/CD, enhancing deployment efficiency by 70%, and integrated AWS services like S3, EC2, Lambda, and API Gateway for streamlined serverless application management.
- Implemented custom search APIs to analyze data from sources like Databricks and Snowflake to handle large-scale data processing.
- Implemented and integrated advanced AI/ML models using TensorFlow and PyTorch, focusing on optimizing inference run times for real-time edge applications.

Skills

Languages: Python, Go, SQL, Java/C++, Shell/Bash scripting

Technologies & Tools: FastAPI, Flask/Django, SQLite/MongoDB, Elastic Search, AWS EC2/S3/Lambda, RESTful APIs, gRPC, Microservices, Pandas/PySpark, Apache Arrow, Airflow, Docker/Kubernetes, Jenkins, Git/Github, Linux.

Projects

Intelligent Search and Analytics Platform | Python, FastAPI and Elasticsearch

- Built an intelligent search and analytics platform using FastAPI and Elasticsearch to index and analyze data from sources like Databricks and Snowflake, featuring custom search APIs and AI-based relevance tuning for enhanced search accuracy. Created reusable index templates and custom analyzers

ApolloFlow | Go, RabbitMQ, PostgreSQL, gRPC, Gorilla Mux

- Designed a high-availability, scalable distributed task queue using Go, incorporating an API Gateway, worker pool, and message queue including concurrent job processing, persistent metadata recording, real-time notifications, and dynamic worker scaling.

Distributed File Storage System | Python, Ceph, MongoDB, RabbitMQ

- Developed a robust distributed file storage system using Python and Ceph, focusing on data replication, load balancing, file sharing, and security measures.