

SAROJ KUMAR

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WORK-EXPERIENCES

Mercedes-Benz Research & Development India

September '2022 - Present

Bangalore, (HYBRID Mode)

Profile: Python Developer

- Built and maintained FastAPI endpoints and models to improve how internal services fetch and serve data – helped speed up responses and clean up the old API structure.
- Developed a backend service in Python and gRPC to make data handling more consistent across different systems for the data team.
- Implemented a service to track ingestion processes using Google Cloud (GCP) Pub/Sub, ensuring efficient and reliable data processing.
- Integrated Flyte to orchestrate and manage reproducible workflows, enhancing the automation and reliability of data processing pipelines.
- Developed Python scripts to perform analytics on the recorded data for the autonomous driving system. [Types of data: parquet, proto-buf, hdf5, xml, json, csv, pandas, numpy, pyarrow]
- Worked on Optimization and Refactoring of code base by enforcing and introducing few design patterns like SOLID, Factory, multi-processing to reduce the overall runtime execution in some modules of the application and total development time for any new feature.
- Test & Infra (CI) - Wrote Unit tests and Integration tests using pytest
- Optimised the CI/CD pipeline by improving the test coverage, pre-commit-hooks, blackduck, sechub, pylint and pydocs

NOKIA Solutions and Networks India Pvt. Ltd

July '2020 - September'2022

Bangalore, WFH Mode

Profile: R&D Engineer

- Developed and implemented authentication module using Flask, focusing on user registration, login, logout.
Tech stack: Python3, Flask, MongoDB, FastAPI, AWS, System Design.
- Developed features related to database like purging of old files.
- Refactored and upgraded code base from Tensorflow 1 to 2 using automated scripts

Profile: DevOps Engineer) July'20 - July'21

- Developed scripts to parse error files by utilizing Python **re** module
- Added blackduck, sechub scan, pre-commit-hooks, build and deploy stages to GitLab. Yml
- Integrated SonarQube in Jenkins to automate code quality-analysis
- Modifications to Docker file, Jenkins file
- Scheduling, Monitoring and Troubleshooting of CI/CD pipelines
- Allocation, Deallocation & Migration of cloud labs, keeping the snapshots, Maintaining the Healthy state of labs
- Worked on Preserving stable builds and Publishing of artifacts and Delivery of final software to customer server

SKILLS

Languages:

Python (Advanced) Java C++

Frameworks & APIs:

FastAPI Flask REST API
gRPC Asyncio SQLAlchemy
web-sockets Oauth, JWT

Databases:

PostgreSQL MySQL MongoDB

DevOps & Cloud:

Git Linux Docker Kubernetes
Jenkins Gitlab CI AWS (EC2, S3)
GCP (gcs, Pub/Sub, IAM)

Workflow Orchestration:

Flyte

Software Engineering:

Data Structure and Algorithm
Distributed Systems GraphQL
Multiprocessing & Multithreading
Design Patterns Kafka, Redis

CODING HANDLES

- LeetCode: <https://leetcode.com/joras/>
- HackerEarth: <https://www.hackerearth.com/@saroj41/>
- GeeksForGeeks: <https://www.geeksforgeeks.org/user/saroj%20kumar/>
- Codechef: https://www.codechef.com/users/saroj_123/

EDUCATION

NIT, Jamshedpur

BTech (Computer Science Engineering)

Aug 2016 - May 2020

- Qualified 'Tata Cummins Scholarship Program 2018'
- Qualified 'National Merit-Cum-Means Scholarship Exam 2011'