VAISAKH KUSABHADRAN

SOFTWARE ENGINEER

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WORK EXPERIENCE

Flipt LLC Software Engineer

Apr 2022 - Dec 2023

- Developed **Flask** based **REST API** components that adjudicates claims for pharmacy benefit management by pre-processing the requests (parsing, validating in **Pydantic** and acknowledging through **RabbitMQ**) in **Python**, and reviewing based on patient information extracted from **Couchbase** DB and **Amazon Redshift**.
- Created Apache Airflow pipelines that process around 50K records of PHI data daily by extracting from SFTP transferred files, transforming using Python, NoSQL scripts and loading into AWS S3 through DAGs.
- Implemented **asynchronous** modules in Python for optimizing database calls and http requests along with **pagination** in data upserts which reduced the service response time by **27% and improved** CPU usage by **14%.**
- Worked on Python packages including **PyCryptodome** for PHI data encryption, **Pandas, numpy** for efficient claim accumulation calculations, **Pytest** for incorporating unit tests and monitoring tools **Datadog** and **Splunk**.

Alpine Electronics

Python Developer

Feb 2022 - Apr 2022

- Implemented advanced image processing techniques in **OpenCV** and **Mediapipe** to preprocess input data, resulting in improved feature extraction and reduced noise in tracking boosting the model accuracy by **9%**.
- Automated the process of integrating pre-processed images into a **RestNet** model fine-tuning workflow from AWS S3 bucket, leading to a **12**% reduction in model training time without compromising model accuracy.
- Diversified training data by applying **data augmentation** techniques like random rotation, translations and flips thereby improving the model's ability to generalize unseen gaze patterns and environmental conditions.

Iqvia, Bangalore, India

Sr.Software Engineer

Feb 2019 - Aug 2019

- Employed Python scripts coupled with SQL queries to efficiently transform medical sales data stored in MySQL
 DB into delimited file formats causing a 40% reduction in time required for generating client specific reports.
- Collaborated with the code migration team to develop Python scripts that interface with MySQL DB to replace DB2 loads by **Mainframe JCL** procedures which improved scalability and increased data loading speed by **25%**.
- Engaged in all SDLC phases of drug sales reporting project including design, development and implementation.
- Collaborated with DevOps teams to establish continuous integration pipelines, automating testing, deployment, and monitoring processes for the SaaS application.

Wipro, Bangalore, India

Software Engineer

Jun 2015 - Feb 2019

- Revamped daily health check activities including server readiness assessment, quote creation, critical job failure alert reports and ticket assignments by creating Python modules which saved **1 hour** per day for the team.
- Achieved 40% increase in data retrieval speed by optimizing DB2 queries using JCL, COBOL, DB2 and Rexx which led to reduction in daily and monthly batch processing duration by 40% and 30% respectively.

EDUCATION

MS in Computer Science San F

San Francisco State University, California

Dec 2021, GPA 3.73

B.Tech in Computer Science

Amrita University, India

May 2015

SKILLS

Languages Python, Java, C, C++, MATLAB, Prolog

Web application HTML, CSS, Flask, Gunicorn

Database MySQL, PostgreSQL, Microsoft SQL Server, Couchbase, Redshift, Alembic

Miscellaneous Github, JIRA, Docker, Kubernetes, Linux, Agile, SFTP, Airflow, pip