OMKAR SARDE

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SUMMARY

Experienced software engineer with 2+ years of professional software development experience in contributing to system design, architecture, scaling & development of production systems. Core expertise in software engineering concepts & software development life cycles.

SKILLS

Programming Languages: Python, Java, C++, SQL, Bash, R
Software Development Tools: Git, Docker, Kubernetes, Amazon Web Services (AWS), Kafka, MongoDB, TensorFlow, React
Software Engineering Concepts: Object-oriented design patterns, Distributed computing, Agile software engineering practices, CI/CD, Service oriented architecture & Frameworks, Algorithms design, Machine Learning, Cloud Computing, Database Management, MLOps

WORK EXPERIENCE

Software Engineer, DEKA R&D Corporation, Manchester, NH February 2022 – Present

- Enhanced system design & development of 4 ML production systems using Python, C++, SQL, Docker, Kubernetes & Airflow to automate data storage, inference & training of ML models. Created 2 new systems for Active Learning
- Boosted system input capacity by 30% & reduced resource utilization 40% by reengineering legacy codebase to improve architecture, design patterns, reliability & scaling of 2 new production systems for 2D images & object detection data
- Collaborated with 5+ technical teams to collect requirements, describe & develop software features for new inference system. Leveraged parallel distributed systems for programming intake pipeline of the system to grow throughput capacity by 150%
- Designed & programmed querying software to enrich Device Team interactions with production databases for 4 ML tasks. Improved customer satisfaction & usage of databases by 25% by reducing average querying time by 220ms through use of custom API
- Technologies Used – Python, Java, Databases, SQL, ML, Docker, Kubernetes, Airflow, Agile Methodology, MLOps

Software Engineer, Horizon Geospace Private Limited, Pune, India June 2017 – July 2018

- Developed & optimized 24+ ETL pipelines to enable analytics with reliability, impacting a 3x refinement in data load time & reduction in decision-making time by 30%
- Designed, developed, & implemented ML-based 20+ Minimum Viable Product (MVP) prototypes for CRM products resulting in the onboarding of 22 new customers & a 15% increase in sales
- Mentored a batch of 5 new interns by designing a learning curriculum & providing holistic domain knowledge sessions & training to develop their programming & software engineering skills to enable their early contribution to projects
- Technologies Used – Python, Java, TensorFlow, SQL, Hadoop, Spark, ML, Statistical Modeling, SCRUM, MongoDB, NoSQL

Engineering Intern, DRDO HEMRL, Pune, India August 2016 – May 2017

- Increased code coverage from 63% to 94% using refactoring & unit-testing to update applications, leading to 1.5x improvement in Memory (CPU) management & saved 110ms in loading time
- Streamlined existing complex codes into efficient scripts by minimizing redundancy, performing numerous code redesigns, participating in scalability & architecture optimizations to develop dashboards & front-end features for multiple user interfaces
- Technologies Used – Python, Java, SQL, NodeJS, React, Unit Testing, Agile Methodology

RELEVANT PROJECTS

Hello Doctor, Full Stack Application

- Created a web app for appointment scheduling & tracking for hospitals & patients using Java, Spring boot, React & SQL

Covid19 Web Application & Dashboard

- Built a web app to track & find trends in covid19 cases by traversing multiple databases. Provided real-time data visualization through dashboard & API access using Python, Flask, HTML, CSS, ML

Realtime Scalable Data Stream Visualizer

- Launched a real-time, highly available & persistent web application to visualize live data streams using JavaScript, AWS SAM & Kafka

Concurrent Communication Application for Distributed Systems

- Developed a reliable protocol for concurrent communication & networks between routers using distributed architecture using Java

Graduate Research Assistant, Action Laboratory at RIT, Rochester, NY July 2020 – February 2021

- Collaborated with a cross-functional agile team to build a dataset of 1000+ videos over 5+ categories by programming parallel & distributed web crawlers to enhance data collection speed by 40%
- Technologies Used – Python, Pytorch, Pandas, Machine Learning, SQL, Databases

EDUCATION

Master of Science, Computer Science, Rochester Institute of Technology, Rochester NY August 2018 – December 2021

- Received Graduate Merit Scholarship for delivering high standards of academic achievements during MS in CS degree

Bachelor of Engineering, Mechanical Engineering, University of Pune, Pune, India August 2013 – May 2017