Saravanan Rajendran

Technical Lead Engineer

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Professional Experience

Motorq
Chennai, TN

Technical Lead Engineer   *August 2024 - Present*

- Led the load testing of the internal system, identified bottlenecks and improved the E2E latency of data integration from 60 seconds to 10 seconds
- Led and designed the migration of an existing OEM data pipeline from webhook consumer to pulsar, which dramatically improved the reliability of the system
- Designed and developed an observability system to alert the team on inconsistencies between Motorq and the upstream OEM, which saves around 10K USD per month
- Designed and developed a framework to increase reliability, debuggability, readability and maintainability of the codebase, which reduced the time to fix a bug by 50% and reduced the existing bugs by 90%
- Contributed to design of various microservices and improved the overall system reliability by 30%.

Motorq
Chennai, TN

Software Engineer   *December 2021 - August 2024*

- Re-architected the customer-facing distributed system to handle 10x the current load with reduced cost and improved fair scheduling
- Improved developer experience and reduced time for testing by automating local setup and support processes
- Designed and supervised the development of a reliable load-testing framework that reduced performance testing time from 3 days to 2 hours
- Developed and enhanced internal operations tooling that dramatically shortened the time it took to process client requests by automating often-performed manual processes and improving the system's auditability.
- Led a team of 5 UI engineers to deliver a major re-architecture of customer-facing UI interfaces.

Myntra
Bangalore, KA

Senior Software Engineer   *April 2021 - December 2021*

- Optimized and reduced the number of servers consumed by the checkout service by 90%.
- Designed and implemented a client-side stats library to track backend API performance and create instant alerts for microservice failures, reducing bug detection time from 1 day to near real-time.
- Optimised multiple features in the checkout flow to increase the customer traction and conversion.

Myntra
Bangalore, KA

Software Engineer   *July 2019 - March 2021*

- Implemented modern payment processing flow that improved user experience and simplified third-party gateway integration. Reducing payment gateway failure by 30%.
- Designed and developed multiple coupon constructs in checkout to increase new user acquisition.
- Developed a library for tracking and visualizing code changes and their impact, helping QA teams focus on potentially affected areas.

Samsung Research Institute Bangalore
Bangalore, KA

Software Engineer Intern   *May 2019 - Jul 2019*

- Implemented a blockchain-based application to enhance protection and privacy of home IoT devices.
- Designed and created a Docker-based platform to emulate multiple hosts and IoT devices.
- Passed Samsung's Advanced Test, a highly competitive programming challenge.

MySwots
Remote work

Software Engineer Intern   *Apr 2017 - May 2017*

- Implemented a note-taking application to help students track and retain learning content.
- Developed a system to convert base64 images to cloud-hosted images and update web page references automatically.

National Informatics Centre (NIC)
Chennai, TN

Software Engineer Intern   *May 2018*

- Implemented a new load balancing algorithm to handle heavy load and improve fairness.
- Increased system throughput by 20% through algorithm optimization.

CEGGLUG
Chennai, TN

Programming Mentor   *Sept 2017 - Mar 2018*

- Taught programming concepts to junior students to develop their coding skills.
- Conducted courses on advanced computing concepts to foster interest in programming among department students.

Skills

Languages   Node, Python
Frameworks   Express, React

Projects

P-Convolutional Image Inpainting

- Implemented partial convolution for image inpainting tasks.
- Developed a model capable of inpainting images with irregular and random holes.
- Implemented optimizations and independently verified results.

Deep Coder

- Implemented Python version of Microsoft's Deep Coder research paper.
- Developed domain-specific language (DSL) and generator for all possible combinations.
- Built and trained neural network on randomly generated labeled datasets.
- Successfully validated and reproduced paper results independently.

Palm and Finger Replication

- Runner-up in CEG's Robotics Club competition.
- Developed computer vision-based palm and finger detection system.
- Created real-time hand movement replication system for robotic arm control.
- Implemented traditional computer vision algorithms for real-time processing.

System Resource Monitor

- Developed a Lua-based system resource monitor using Conky API on Linux.
- Created an efficient resource management tool optimized for mid-range systems.

Honors & Awards

HackOn Hackathon

- Won the Best Use of Elasticsearch Award at HackOn Hackathon, competing among 2500+ participants from across India.

Myntra HackerRamp

- Finalist in Myntra's Internal Hackathon.

Accenture Blockchain Hackathon

- Finalist in Accenture Blockchain Hackathon among 2500+ participants.

ChargeBee - Women Tech Fab

- Second Runner-up in WTF Hackathon among 200+ participants.

Tip Expo

- Won first place in TIP Expo (Intra-college Technical Exhibition) among 150+ participants.

Education

College of Engineering Guindy
Chennai, TN

Bachelor of Technology in Information Science and Technology (B.Tech.), GPA: 9.08/10
May 2019

- **Graduated in First class with Distinction**