

Hariharasudhan Thirumurthy

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SUMMARY

Proactive and results-oriented Software Engineer with a Master's degree in Computer Science and a strong background in developing scalable software solutions. With over 4 years of dedicated experience in software development, full stack development, backend development and real time analytics. I am Certified AWS Solutions Architect and a Cloud Practitioner.

SKILLS

Web Technologies: Spring Boot, Spring MVC, Microservices, GraphQL, gRPC, REST APIs, React, Typescript, JS, HTML, CSS.
Database: Map Reduce(Hive, Apache Spark), NoSQL(MongoDB, Redis, Cassandra), SQL (Oracle PL/SQL, Postgresql)
Programming Languages: Java, Python, Javascript, C/C++ (parallel programming with MPI), CUDA and GPU programming.
Cloud Services: AWS Cloud (EC2, SQS/SNS, API Gateway, Lambda, S3, , RDS, DynamoDB). GCP (BigQuery, BigTable, Firebase)
CI/CD and Tools: Terraform, Jenkins, Dockers, Kubernetes, Airflow, Kafka, Flink, GIT, Rabbit MQ, Elastic Search, Databricks.

PROJECTS

- Developed an Android application to simplify attendance management by reading **RFID tags** using **NFCs** on phones(2016).
- Smart home automation:** Used Embedded systems to control lights, fans, etc. through voice via an **Android** application (2016).
- Developed **embedded hardware to store crypto wallet information** securely. Leveraged QT/QML for UI.
- Developed an Enterprise-level e-commerce website for mobiles, having a mobile compare feature. Used **Angular** for the front end, Spring boot (**microservice**) for the backend.
- SwiftSoftJobs:** Designed a dynamic system tailored to streamline job applications by fetching over 100 software job postings across the US daily. This tool enhances job seekers' visibility by ensuring timely applications, capitalizing on data that indicates earlier applications significantly increase the likelihood of a hiring manager's review
- Built an **NN with transfer learning** on the image dataset to identify the concept activation vectors to analyze the **correctness of the model**. Image classification, Object detection, and semantic segmentation were analyzed with **OpenCV** to verify correctness.
- Predict USDA for Recipes:** Developed ML model to predict health score for various recipes using tensorflow, keras, and Spark.

WORK EXPERIENCE

Senior Software Engineer - Project Associate

March 2022 - June 2022

Indian Institute of Technology

Chennai, India

- Researched, analyzed, and designed an application that classifies people based on demographics from the geotags, enabling outdoor advertisers to maximize their reach and **boosting profit margins by 110%**.
- Developed a **real-time data** processing system leveraging **Kafka** to stream geo pings and **Apache Flink** to aggregate data, enabling clients to dynamically adjust their market strategies, and thereby **revolutionizing the outdoor ads industry**.

Senior Software Engineer – Software Product Development

March 2020 - February 2022

MasDat Solutions LLP

Bangalore, India

- Produced low-latency statistical reports for metrics tracking and stakeholder reporting. Leveraged **Apache Airflow** to **extract data** and loaded it into **Hive**. Utilized **Presto for efficient querying** and report generation.
- Re-engineered the web application **to support multilingual capabilities, facilitating business expansion** into the Middle East and Europe while significantly improving scalability and user experience.

Senior System Engineer

January 2018 - March 2020

Infosys Ltd for the client Goldman Sachs

Bangalore, India

- Collaborated with cross-functional teams like Credit Risk Management to develop a comprehensive application for client onboarding processes including negotiations, due diligence, risk management, and account setup. This **innovation reduced client onboarding time by 60%**.
- Identified data corruption in systems and developed validation routines and services to ensure data integrity during transfers, resulting in a **27% improvement in data accuracy**.
- Led the enhancement of a legacy application, including query optimizations and setting up new pipelines to fetch data from updated sources while deprecating invalid data sources. Ensured seamless and error-free operations by independently managing the entire project lifecycle, from conceptualizing the vision and creating the roadmap to designing, implementing, testing, and successfully launching the solution.

EDUCATION

Missouri University of Science and Technology, Rolla, MO

August 2022 - May 2024

Master of Science in Computer Science

GPA: 3.71/4