## Bhavani Shankar Y

### Senior Engineering Manager



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Results-driven Engineering Manager with 11+ years of experience building and leading high-impact teams in fastpaced, innovation-driven environments. Known for delivering scalable, high-performance systems with a strong focus on customer success. Brings a balanced blend of technical expertise, strategic thinking, and hands-on leadership across the full product lifecycle. Proven ability to drive projects from concept to delivery with precision and purpose.

# **Skills**

- Languages Java, Python, ruby, go
- Databases Postgres, SQLite, Cassandra, Elasticsearch, Mongodb (basics)
- Message Queues Kafka, SQS, Pulsar (basics)
- Restful Web Services, AWS, Azure, Docker, Kubernetes, Micro-services, Design patterns
- ML Clustering, Classification, IE, NLP (basics) GPT3, Word2Vec, CodeT5
- Data Structures and algorithms, Problem Solving
- Agile Methodologies/Tools

## Work History

#### **Senior Engineering Manager**

Fourkites, Chennai

- Spearheaded the Generative AI strategy for the organization, launching a new revenue stream and shaping the long-term AI/ML vision.
- · Led cross-functional teams to enhance ETA accuracy across transportation modes by over 15% from baseline, significantly boosting satisfaction among the organization's top 30 customers.
- Drove R&D initiatives focused on building custom language models tailored to business needs, positioning the organization at the forefront of AI innovation.
- Key Areas: Generative AI, AI/ML, Strategy, Vision, R&D Leadership

#### **Senior Staff Software Engineer**

Fourkites, Chennai

- Was instrumental in saving \$500k for the organisation by migrating application from on premise environment to Azure.
- · Led the strategy for migrating from on-premise to Azure, collaborating with multiple teams (Platform, Microsoft, Neudesic, Atlas).
- Responsible for setting up best practices for cloud migration.
- Delivered a tech talk at prestegious 6th API and Developer conference.
- Key Areas: Microservice architecture, Data protection policies, migration strategies, Stakeholder management.

#### **Staff Software Engineer**

Fourkites, Chennai

2023-02 - 2024-03

2024-03 - present

2020-01 - 2023-02

- Worked as CoreTeam Member driving the overall technology part of the product. Managed the backend part of the system along with mentoring engineers and promoting best engineering practices.
- Was responsible for architecting a solution to migrate app from AWS to azure.
- · Worked on build and deployment automation using Git and Jenkins
- **Key Areas:** Spring boot, SQS, Kafka, Cassandra, Elasticsearch, Postgres, Kubernetes, helm, Jenkins, Git, NLP

2018-08 - 2020-01

#### Associate Engineering Manager

Fourkites, Chennai

- Responsible for forming a team to develop mobile apps.
- Responsible for decoupling services required for mobile apps from core-services to enable scaling.
- Responsible for improving the rating of app in playstore (2.7 to 4).
- Key Areas: Project management, JIRA, Design patterns.

2013-07 - 2018-08

#### Technical Lead

Samsung R&D, Bangalore

- Responsible for personalising experience for all Samsung Smartphones.
- Responsible for developing smart graph db to enable on device ML.
- [Research] Responsible for enabling smart keyword search based on user personalisation.
- Key Areas: Java, Graph db, Android, SQLite, DS and algo.
- Travelled to HQ in Korea for commercialising several projects.

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### **Education**

2011-08 - 2013-05

Computer Science Engineering, M.Tech

IIIT, Hyderabad, CGPA-7.8

2007-07 - 2011-04

Computer Science Engineering, B.Tech

V.R.Siddhartha College of Engineering, CGPA-8.3

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### **Projects**

2022-11 - present

[Research] Digital Agents

The Project involves design, development and support for development of "Smart Automation" feature for Fourkites customers. Expectation was to automatically generate automation various supply chain activities through natural language.

#### Roles & Responsibilities:

- Study of various language models / tools for building domain specific language models.
- · Experimentation with different agentic frameworks for building long memory agents and chatbots.
- Evaluation framework setup for language models like Deepseek, Sonnet etc.;.

2018-08 - present

#### Transitioning Fourkites app to Azure cloud

The Project involves design, development and support for development of "Fourkites app" to azure cloud. Expectation was to transition end-to-end system on to azure cloud

#### Roles & Responsibilities:

- Design and develop effective strategies to migrate message queues coupled with AWS to Cloud agnostic ones.
- Design and develop effective strategies to migrate apps from traditional eb deployments to kubernetes.
- Coordinate with multiple teams to effectively run the transitions based on a defined initial template.

2018-08 - present

#### Courier mode development

The Project involves design, development and support for "Courier" mode feature in Fourkites tracking product. Expectation was to develop an end-to-end system for courier mode i.e.; from data ingestion to data inference and notifying customers.

#### Roles & Responsibilities:

- · Design and develop an efficient framework to ingest data for creation and tracking of loads.
- Design and develop state machine to manage load transitions based on updates.

2018-08 - present

2013-07 - 2018-08

2013-07 - 2018-08

2015-02

2011-09

2020-12

2018-02

2014-02

2006-02

- Develop Jenkins pipelines for deploying services to kubernetes.
- Design and develop event driven approach for end-to-end communication.

#### Manager mobile team

The Project involves building mobile apps for Fourkites platform. Expectation was to form a team and increase app adaptability.

#### Roles & Responsibilities:

- Build team from nascent phase to develop mobile native applications i.e.; recruiting, setting up team charter, processes, R&R for each team member.
- Decouple features specific to micro-services to scale up mobile apps.
- Improve the store rating of the app started at 2.7, improved it to 4.6.
- Improve competencies in team to reduce development time i.e.; Automation, Hybrid app development, micro-services etc.;

#### On Device User Modelling using Graphs

The Project involves design, development and support for development of "Smart Stories" feature for Samsung Gallery. Expectation was to automatically cluster media content and present meaningful data to the end user.

#### Roles & Responsibilities:

- Design of algorithms that identify user, user related activities and close groups using captured media elements.
- Design mechanism to store and retrieve graph in an optimised manner.
- Testing and validating the algorithms by conducting User Trials.
- Various services were tuned to provide services only on user specific media elements.
- "Keyword Suggestion" in Bixby Shopping mode was commercialized in Note 9.
- "Smart Stories" feature was part of Samsung flagship models from Galaxy S7.
- "Smart Timelineview" feature was part of Samsung flagship models from Galaxy S7.

#### [Research] On device generation of knowledge graph using web content

The Project involves design, development and support for development of *Graphene* feature for Samsung web browser. Expectation was to automatically cluster web content browsed by user and name the identified clusters.

#### Roles & Responsibilities:

- Study of various clustering algorithms on top of textual data, various automatic cluster naming techniques.
- Experimentation to automatically identify optimal number of clusters.
- Features like complete page data, title, footers, page links etc., was considered for designing the algorithm.
- Was awarded a patent and presented a paper based on the experimentation results.

## **Awards**

- Patent "Dynamically modifying elements of user interface based on knowledge graph," REF ID - WO 2015122691
- Paper "Study of security issues in cloud computing," ICJST, Vol. 2
- Winner of company wide hackathon, Illuminati'20
- SBPA An unsupervised clustering algorithm for community detection using media
- SBPA Novel way to construct knowledge graph using browser history
- Was ranked 3rd at State level maths olympiad competition
- Guest speaker at 6th World API and Developer conference

Certificates

- PG Level Certification Program in Artificial Intelligence and Machine Learning
- Cricket Analytics using python Mad about sports
- Data Science with python Simplilearn
- Machine learning Coursera

2015-04

2022-11

2021-12

2020-04