

# Pavitra Behre

COMPUTER SCIENCE · SOFTWARE ENGINEER

Bengaluru, Karnataka

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“Making a piece of sand to perform whatever tasks I ask it to do is a great power.”

## Summary

With 4+ years of experience as a software engineer, I am a highly motivated and results-oriented professional with a strong passion for technology and innovation. I have a proven track record of success in designing, developing, and implementing complex software solutions. I am proficient in a wide range of programming environments and technologies, including Java, Python, Web technologies, and more. I am also a strong problem solver and have the ability to quickly learn new technologies and adapt to new environments.

## Work Experience

### Amazon Development Centre India

Bengaluru, India

#### SOFTWARE DEVELOPMENT ENGINEER 2 - DATAPATH (API Gateway for On-Demand compute platform)

Oct. 2021 - Present

- Amazon hosts a massively scalable distributed on-demand compute platform which enables Amazon engineering teams to define their business logic and the platform then hosts their solution and manages their scale.
- Led the design, development, and full lifecycle ownership of the Pre-Production Fault Detection System (Canary), encompassing real-time configuration and monitoring capabilities.
- Engineered a cross-regional solution to decommission hardware load balancers, migrating the service entirely to AWS Hosted software-defined Network Load Balancers (NLBs). This transition facilitated more efficient and rapid scaling capabilities for the service as needed.
- Developed a solution enabling real-time traffic switching between multiple instances of the same edge proxy service, facilitating seamless traffic migration and enhanced control over request routing. This project directly supported Datapath's ability to perform live traffic migrations. Combine this with above cross region solution and you get on-demand region specific traffic routing.
- Led regional expansion of a service and product, distributing compute load and optimizing resource utilization, power consumption, and request serving. This enabled segregation of critical and non-critical traffic for dedicated resource allocation.
- Designed, developed, and implemented a real-time dynamic configuration system for scalable deployment of file-based configurations. This system enabled high-performance gateway service to reconfigure themselves without service interruption or traffic loss.
- Led peak readiness initiatives to ensure service scalability and operational stability during high-volume events such as Prime Day, Black Friday/Cyber Monday, and Prime Big Deal Days. This involved capacity planning, operational readiness reviews, and on-call team preparedness.

#### SOFTWARE DEVELOPMENT ENGINEER 2 - METADOR (Metadata Catalog and Analytics)

- Investigated and identified data quality issues within the dataset, implementing proactive quality control measures for continuous monitoring and automated alerting of anomalies.
- Designed, developed, and implemented a rule-driven data tagging engine and system for scalable, rule-based dataset tagging. This system provides a foundation for identifying irrelevant dataset entries and noise, enabling customer recommendations.
- Developed generative AI-powered chat bots leveraging Retrieval Augmented Generation (RAG) to simplify data access. This enabled non-technical users to generate SQL queries and derive insights through natural language interaction.

### Cisco Systems (India) Pvt. Ltd.

Bengaluru, India

#### SOFTWARE ENGINEER - WEBEX

Jan. 2021 - Sept. 2021

- Designed, developed, and deployed multiple bi-directional gRPC-based media streaming services capable of real-time audio call streaming, forking, and analysis.
- Developed an end-to-end infrastructure testing framework for simulation across the Webex Contact Center product.
- Developed and contributed to a gRPC-based orchestrator service for real-time audio call processing. This service facilitates insights generation, including transcription, dialogue flow analysis, and chatbot integration, to enable scenario resolution.
- Developed a DTMF Testing platform for in-call operation testing.

## Skills

### Programming Languages

Java, Python, C, C++, JavaScript, PHP, ProtoBuf, gRPC

### Web Technologies

Laravel, Springboot, Core (HTML, CSS and JQuery), REST

### Data Technologies

AWS Glue, Pandas, Spark, Jupyter

### Databases

Oracle 10g, SQL, MySQL, MongoDB, DynamoDB

### Networking

Network Load Balancers, VPC, Data Streaming, Routing

### Platforms/Tools

AWS, Linux, Git, Kafka, Zookeeper, ElasticSearch, Maven, Redis, CDK, Lambda, EC2, API Gateway, ETL

## Education

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### Gyan Ganga Institute of Technology & Sciences (RGPV University)

B.TECH. IN COMPUTER SCIENCE ENGINEERING (CGPA: 8.64)

Jabalpur, MP, India - 482003

2017 - 2021

### Little World School

12TH PCM (PERCENTAGE: 88%)

Jabalpur, MP, India - 482003

2004 - 2017

## Achievements and Leadership

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### Foxogyan (Official Mozilla Campus Club)

CORE MEMBER

GGITS, Jabalpur

Jun. 2018 - PRESENT

- Reformed the society focusing on software engineering and building network on and off campus.
- Creating awareness for Open Source Software

### Smart India Hackathon II

FINALIST

India

March 2018

- Team Leader & finalist in SIH 2018, developed an application for CSIR, India, allowing users to easily find substitute medicines and drugs nearby.
- Placed in Top 10.

### Smart India Hackathon III

FINALIST

India

March 2019

- Lead Developer & finalist in SIH 2019, developed a solution for MindTree, focusing on e-commerce activities for farming sector and bringing new reforms in it.
- Placed in Top 10.