# **BISWAJIT KAUSHIK**

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# Work Experience

# Samsung R&D | Software Engineer

Jan' 24 - Present

- Part of the AI Platform team developing **RAG workflows** using **LangChain** and integrating AI solutions on smartphones.
- Previously the part of Samsung Health application team, creating solutions to **digitize the health record** of our users.
- Utilized AWS Lambda, DynamoDB and API Gateway to develop backend servers for fetching and storage of records.
- Researched and analyzed various OCR solutions, LLM for retrieval of lab parameters from lab reports including Azure, AWS, ChatGPT and Google Gemini that reduced cost by 30%.
- Delivered modern records share and download functionality in the app improving creativity and user experience.
- Deployed cryptography encryption, decryption service on AWS EC2 providing secure transmission of records.

# OpenStreetMap | Python Developer (Open-Source)

Jan' 23 - May'23

- Worked on development of a geocoding search engine that serves 30 million queries daily on a single server.
- Implemented a delete tags sanitizer to prevent unwanted tags from entering the database thereby improving search results by 10% and enhancing security. Ensured integrity by unit testing using Pytest with 100% testing coverage. ☑
- **Reduced 20% redundancy** in code by generalizing filter function for multiple use cases. ☑
- Performed shell scripting for automation of project description and adaptability. Integrated CI/CD pipeline test on GitHub actions workflow reducing manual effort by 10%. ☐
- Resolved bug in determining amenity as area solving 6 current and multiple potential issues by troubleshooting and observation. Improved code readability by comprehensive documentation.

#### Skills

Programming Languages: Python, Javascript, Typescript, C++, Lua, Java, Kotlin

Framework: Flask, FastAPI, Django, React, node.js, Next.js, Rest API, SQLAlchemy ORM, Tailwind CSS, HTML

Database and Cloud: SQL, PostgreSQL, MongoDB, Redis, AWS (EC2, S3, Lambda, DynamoDB)

Tools: Docker, Kubernetes, Apache Kafka, Linux, Bash, Elasticsearch, Version Control (Git)

#### **Projects**

# LogFlow Insight: Log Ingester and Real-Time Query Interface | Github, Video Demo

- A fullstack distributed and scalable microservice system that provides a server for high volume log data ingestion over HTTP and a real-time query interface to search logs based on 7+ filters.
- Utilizes Elasticsearch partitioning and sharding database for storage, retrieval and analysis of log data providing high resilience and availability.
- Server built using FastAPI which handles multiple concurrent requests asynchronously with high performance. Performed load testing. Published interface website using Flask, JQuery and Bootstrap that handles log streaming.
- Employed docker to containerize components that allows quick shipping, deploying and scaling of the remote software reducing deployment effort by 30%.

# Youtube Watchman: Youtube Data API-Based Dashboard Web App | GitHub

- Utilized Youtube Data API and information retrieval technologies to efficiently detect video uploads on channels, trigger events and improve productivity and management.
- Integrated SMTP protocol email and automatic comment functionality using a multithreading model.
- Employed Flask to develop backend REST APIs, used PostgreSQL as database and login functionality using Google **OAuth 2.0 and server-side sessions** with proper system design architecture.
- Implemented Role-Based Access Control(RBAC) with OAuth 2.0 authentication logged in and guest user features.

### Achievements

- Rated 2194 (Guardian) on LeetCode (Top 1.1% worldwide). Solved 700+ problems on multiple platforms.
- Utilized knowledge, active learning, problem solving and optimization to achieve rank 675 in Google Kickstart Round H.\_☑
- Authored in-depth, comprehensive, high quality and informative articles with teamwork achieving 30000+ impressions. ☑

# **Education**

### Indian Institute Of Information Technology Kota

Bachelor of Technology(B.Tech) in Computer Science and Engineering (CSE)

**CGPA: 8.68** 

Course: Data Structures & Algorithms, Object-oriented programming, design patterns, Operating Systems, Computer Network, Databases

2020 - 2024