Sanath Bhimsen

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SUMMARY

Efficient Software Engineer with 3+ years of experience in fullstack development, distributed systems, data engineering, and cloud technologies. Skilled in optimizing system performance, enhancing data accuracy, and driving operational efficiency in Agile environments.

EXPERIENCE

RESEARCH ASSISTANT, BOSTON UNIVERSITY Boston, massachusetts   **March 2024 - Present**
- **Improved PERM data accuracy by 80%** by collaborating with the Faculty of Computing & Data Science and utilizing **Python** to refine **1.4M data points**, deepening insight into U.S. hiring and compensation trends.
- **Streamlined research analysis and elevated prediction speed by 40%** by standardizing company names with fuzzy matching and utilizing the **OpenAI API** to enhance dataset integrity and facilitate smoother extraction of actionable insights.

DATA ENGINEER INTERN, INFINERA San Jose, California   **June 2023 - Aug 2023**
- Designed a Metric Collection Framework in **Python** at the firmware level of the Infinera GX, **reducing data processing time by 40%** and streamlining operational efficiency through improved monitoring of processes and resource utilization.
- Integrated real-time **Chart.js visualizations** into a performance dashboard effectively representing memory and CPU usage data gathered through the data collection framework.
- **Achieved a 30% reduction in CPU utilization** by enabling targeted optimizations based on these visualizations, significantly improving system performance and operational efficiency.

SOFTWARE ENGINEER-2, SOPHOS TECHNOLOGIES Bengaluru, India   **June 2019 - June 2022**
- Developed a feature using **React, Node.js, and Java** to establish site-to-site IPsec VPN connections from Sophos XG firewall to **AWS VPC**, automating the import of connections to AWS VPC resources (e.g., AWS EC2, RDS).
- **Accelerated API response times by 30%** by creating and refining **RESTful APIs** in **Node.js**, integrating with a **Java** backend via **Spring JDBC** for **SQL processing**, and rigorously tested end-to-end with **Postman** for enhanced efficiency.
- Led the overhaul of the VPN user interface on the XG Firewall for version 19, improving visual appeal and usability.
- **Slashed latency and page load times by 50%** by optimizing **React-based UI** components, enhancing UX & responsiveness.
- Engineered a solution to stream VPN logs into **AWS CloudWatch**, allowing security teams to monitor for suspicious activity.
- **Resolved over 15 customer escalations**, significantly enhancing system stability and reliability by addressing performance bottlenecks, security vulnerabilities, and functionality errors, ensuring robust system performance and user trust.

DATA SCIENCE INTERN, PERFIOS Bengaluru, India   **Jan 2019 - May 2019**
- **Decreased analysis time by 20%** by implementing interactive **d3.js visualizations** for demographic and financial transaction data across banking customers, facilitating quicker identification of key market trends.

PROJECTS

Open Source Developer for Yoja.ai Project   **June 2024 - Present**
- Collaborating on building an advanced Generative AI Assistant that retrieves information from documents stored on Google Drive and Dropbox, using **FAISS** for context detection and OpenAI's **GPT-4o** for providing tailored responses.
  Stack: Python, React, TypeScript, AWS S3, AWS Lambda, Facebook AI Similarity Search (FAISS), Open AI GPT-4o, Docker

PlanMyTrip (*Boston University*) [Github](#)   **April 2023 - May 2023**
- Created a **Kotlin**-based mobile app for personalized travel itineraries, integrating Google Maps API for geolocation and route optimization, and **Firebase** for real-time updates and authentication, enhancing the travel planning experience.

Addressing transient workload spikes with Cloud Bursting in Apache Flink (*Boston University*) [Github](#)   **Feb 2023 - May 2023**
- Designed and implemented a distributed system using **Apache Flink** with cloud bursting to **AWS Lambda**, handling transient workload spikes, optimizing throughput and reliability, and achieving **0% back pressure** during high-load conditions.

ATM/Banking Management System (*Boston University*) [Github](#)   **Nov 2022 - Dec 2022**
- Built a **Java**-based ATM/Banking Management System using **Swing GUI and MVC** design pattern, enhancing banking efficiency with a user-friendly interface and a modular backend**,** enabling easy scalability and feature additions.

SKILLS

- **Proficient:** Python, Java, JavaScript, TypeScript, HTML/CSS, React, Flask, Spring, MySQL, PostgreSQL, AWS (Lambda, S3, VPC), Docker, Git, Github, CI/CD (Jenkins & GitHub Actions), Jira, API Testing (Postman)
- **Familiar:** AngularJS, Kotlin, C/C++, R, Next.js, d3.js, Chart.js, JUnit, Node.js, Express, GraphQL, MongoDB, SQLite3, Redis, Apache Kafka, Apache Flink, Apache Spark, AWS (EC2, DynamoDB, CloudWatch), Kubernetes, Firebase

EDUCATION

M.S in Computer Science - Boston University, Boston, MA   **Sept 2022 - Jan 2024**
Coursework: Advanced Algorithms, Object Oriented Design Principles, Streaming And Event Driven Systems, Mobile Application Development, Conversational AI, Computational Tools for Data Science, Natural Language Processing.

B.Tech in Computer Science (Specialization: Data Science) **- PES University, Bengaluru**   **Aug 2015 - Aug 2019**