Sanath Bhimsen

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EDUCATION

M.S in Computer Science - Boston University, Boston, MA **Expected Dec 2023**
Relevant Coursework: Graduate Algorithms, Object Oriented Design Principles, Streaming And Event Driven Systems, Android Mobile App Development(Kotlin).

B.Tech in Computer Science - PES University (Graduated with Distinction) **Aug 2015 - Aug 2019**
Specialization: Data Science

SKILLS

- **Programming Languages/Technologies:** C/C++, Python, R, Java, HTML/CSS, Javascript, Kotlin
- **Technologies::** Firebase, AngularJS, React, RESTful APIs, Flask, D3.js
- **Tools/CI-CD/Databases**: Linux, Git, Jira, Jenkins, Github Actions, Docker, MySQL, MongoDB

WORK EXPERIENCE

FIRMWARE ENGINEERING INTERN, INFINERA **Jun 2023 - Aug 2023**
- Developed a **Metric Collection Framework** at the Firmware level for the Infinera GX controller.
- Generated **real-time data visualizations** to analyze memory and CPU utilizations.

Technical Skills: Python, Seaborn

SOFTWARE ENGINEER, SOPHOS TECHNOLOGIES **Jun 2019 - Jun 2022**
- Played a pivotal role in building the **front-end of the Amazon VPC** port to the Sophos XG firewall, contributing to a deeper understanding of the domain.
- Made significant contributions to the back-end through **bug fixes**, ensuring the overall stability and functionality of the system.
- Revamped the VPN UI on the XG Firewall, leading to its release in version 19. This redesign **streamlined** the user interface, improving the **overall user experience**.
- Participated in comprehensive code reviews, ensuring the integration of **clean** and **optimized** code.
- Led optimization efforts on critical UI components, **achieving a 50% reduction** in latency and page load times, thereby improving system performance.

Technical Skills: Python, Java, C/C++, JavaScript, HTML, CSS, and React

PROJECTS

Addressing transient workload spikes with Cloud Bursting in Apache Flink **Feb 2023 - May 2023**
Boston University
- Developed a solution for handling abrupt **workload spikes** in **Apache Flink** by integrating **Cloud Bursting**, an innovative offloading technique.
- Replaced the traditional back-pressure mechanism with Cloud Bursting to transfer surplus workload to a scalable cloud provider (e.g: **AWS**), ensuring **optimal system performance** during workload surges.
- Demonstrated a **significant enhancement** to the Apache Flink framework by enabling it to seamlessly accommodate sudden **workload fluctuations** and reducing back pressure in the pipeline to zero in all experimental tests conducted.

Technical Skills: Java, Apache Flink, Cloud Bursting, AWS, Distributed Stream Processing

ATM/Banking Management System **Nov 2022 - Dec 2022**
Boston University
- Designed and implemented a **modular** and **scalable** ATM/banking system from scratch using an **object-oriented design** approach.
- Led the design and implementation of key components in the **data access object (DAO) layer**, responsible for **database interaction** and data mapping to the object design.
- Created a **user-friendly interface** for efficient account management, streamlined transaction processing, and instant daily report access, utilizing the **Model-View-Controller (MVC) design pattern** throughout the application's development.

Technical Skills: Java, Swing Java GUI, MySQL, Object-Oriented Design, Design Patterns (MVC)