Sanath Bhimsen

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EDUCATION

M.S in Computer Science - Boston University, Boston, MA **Expected December 2023**
Relevant Coursework: User Centric Systems for Data Science, Graduate Algorithms, Object Oriented Design Principles, Streaming And Event Driven Systems, Android Mobile App Development(Kotlin), Intro to Conversational AI Systems, Computational Tools for Data Science, Natural Language Processing.

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

SKILLS

- **Programming Languages/Technologies:** C/C++, Python, R, Java, HTML/CSS, Javascript, Kotlin
- **Frameworks/Libraries**: 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 **June 2023 - August 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 **June 2019 - June 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)