Medha Kalkur

Salt Lake City | medhakalkura@gmail.com | +1(385)472-3997 | https://www.linkedin.com/in/medha-k-7690a016a/
https://medhakalkura.github.io/

EDUCATION

Master of Science, Computer Science 08/2022 – 05/2024
University of Utah Salt Lake City, USA

Bachelor of Engineering, Computer Science 08/2016 – 09/2020
JSS Science and Technology University Mysore, India
CGPA: 9.70

SKILLS

- Programming Languages: C++, C#, Python
- Environments: Visual Studio, Jupyter Notebook, Git, Linux
- Web Development: HTML, CSS, Javascript, PhP
- Database: SQL, Vertica, LevelDB
- Cloud Experience: MS Azure
- MicroServices: Kubernetes

PROFESSIONAL EXPERIENCE

Graduate Research Assistant 01/2023 – 05/2023
University of Utah Salt Lake City, United States
- Led the research and implementation of a Piecewise Linear Regression Model to accelerate compactions in Google's LevelDB; achieved a 30% reduction in comparison count during the merge process, enhancing overall system efficiency and performance.
- Composed a generic K-Vector merge library that merges k sorted vectors into one with efficiency less than O(n) using the above mentioned models.

Graduate Teaching Assistant 08/2022 – 12/2022
University of Utah Salt Lake City, United States
- Tutored and assisted 50 students of Masters in Software Development who have no prior programming experience in understanding C++, Java, Data-structures and completing projects.
- Conducted scheduled office hours to provide assistance and clarification on doubts and issues, while also assessing and evaluating assignments.

Software Engineer II 02/2022 – 06/2022
MicroFocus Bangalore, India
- **Azure Web-hook alert integration to OBM for Common and Non-Common Schema**
  - Designed and implemented a functionality to capture both common and non-common Azure web-hook alerts and seamlessly transmit to the OBM UI via REST calls.
  - Enhanced UX by categorizing REST responses into specific alert events, enabling customers to visualize performance scales graphically. Achieved a 27% optimization in performance efficiency compared to previous implementation.

Software Engineer I 08/2020 – 01/2022
MicroFocus Bangalore, India
- **Azure Storage account monitoring and Azure VM Discovery Enhancement**
  - Implemented Azure Storage account monitoring alignment with an augmented monitoring framework, resulting in a seamless migration of existing code to a generic REST-based data collection framework.
  - Resolved a critical showstopper issue related to Azure VM primary DNS discovery conflict, resulting in a 100% resolution rate for the issue and boosted system stability.
- **Optic data lake integration for Management packs**
  - Built the Custom Metric Ingestion tool that converts agent DB tables to Vertica readable JSON files.
  - Wrote VSQL queries for post load data processing and ensures that late entries are processed as well. The queries would aggregate (Hourly, Daily) the raw data.

Software Development Intern 01/2020 – 07/2020
MicroFocus Bangalore, India
- Played a key role in the PoC development of the Optic DL integration solution for the Prometheus Connector. Led the creation of schemas and BVD (Business Value Dashboard) . Contributed to a successful PoC, resulting in a 30% increase in data integration efficiency and a 20% improvement in monitoring capabilities.
- Created Python scripts using Selenium for Continuous Hours of Operation testing on WebLogic Application Server. Simulated 70% of the application load through login, messaging, profile switch, and logout operations, enabling comprehensive performance evaluation and system optimization.

PROJECTS

Indian Sign Language Interpreter
- Developed an interpreter utilizing image processing models and Convolutional Neural Network (CNN) to convert Indian Sign Language to English alphabets along with audio output, achieving an impressive accuracy rate of 85%.

DBMS project on Waste management System
- Designed and developed a website using HTML, CSS, and PHP for facilitating the purchase and sale of waste products, offering convenient door-to-door service
- Created a user-friendly platform for efficient segregation and management of various types of waste, including biodegradable and non-biodegradable materials leading to a 30% improvement in waste management efficiency.

Hackathon registration Website
- Devised and hosted a hackathon registration website(hackelite2k19.org) for national level hackathon conducted as a part of college student club LCC(Linus Campus Club).
- Improved the LCC website by incorporating sections for alumni details and upcoming hackathon information within the event registration page, resulting in better user experience and engagement.