MADHUSUDHAN (MADHU) AITHAL MAHABHALESHWARA

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EDUCATION

University of Colorado Boulder
MS, Computer Science May 2021
Coursework: Design and Analysis of Algorithms, Machine learning

R V College of Engineering
BE, Computer Science and Engineering, CGPA – **9.45/10** May 2017
Relevant Coursework: Design and Analysis of Algorithms, Operating System, Computer Networks – I & II, Introduction to Machine Learning, Database Management System, Data Warehousing and Mining, System Software and Compiler Design, Data Structures

TECHNICAL SKILLS

- Programming languages: Java, Python, JavaScript, C++
- Databases: MySQL, Neo4J, MongoDB, Apache Cassandra
- Frameworks/Libraries/Tools: Node.js, D3.js, Angular, jQuery, Spring Boot, Express.js, Docker, Rasa, PyTorch, Sklearn, Nginx

EXPERIENCE

Specialist Programmer (Expert Track) **Infosys, Bangalore** *July 2017 – July 2019*
- Designed and developed an end-to-end visual analytics application for organizational team performance management, currently being used by business leaders of Infosys. Developed microservices using Node.JS and MongoDB, along with visualization based user interface using JavaScript and D3.js.
- Worked on DevOps automation for an employee experience application in Infosys. Used Shell scripting, Docker and Docker Swarm for the deployment of applications. Worked on docker container monitoring and host monitoring using Prometheus.
- Developed an Angular library based on the Sunbird telemetry specification, for capturing telemetry data in web applications. The library was being used by more than 10 applications of Infosys. (Angular 7)
- Enhanced a Python module to convert the natural language query into cypher query language (Neo4J), using the Rasa framework. This was deployed as a flask microservice (Python, Rasa, Flask)

Intern (Expert Track) **Infosys, Bangalore** *January 2017 – June 2017*
- Developed a visualization application to identify key performers across teams using network science properties such as centrality indices, and identified communities using the Girvan-Newman community detection algorithm. (JavaScript, D3.js, Java, and Neo4J)
- Modeled and developed a knowledge graph used for developing an internal question and answering site for technical topics at Infosys. (Neo4J)
- Developed REST APIs for a microservice used by sales visualization applications of Infosys. (Spring Boot, Neo4J)

Intern **Mathologic Technologies, Bangalore** *June 2015 - July 2015*
- Developed and implemented heuristics for building a decision support system to make efficient railway crew links and locomotive links. (Java and MySQL)

ACHIEVEMENTS

- Emerged as Winners and First Runners up in organization-wide hackathons in Infosys, in Mar 2019 and Sept 2018 respectively.
- Secured Best Project award for the project titled “Comparative Study of Computationally Intensive Algorithms on CPU and GPU” in R V College of Engineering in 2015.
- Won a second prize in “The Buggers” national-level coding competition, held at R V College of Engineering in February 2015.

PROJECTS

Chat Application with Sentiment Analysis *Aug 2016 – Nov 2016*
- Developed a chat application that could predict the sentiment of messages with the test accuracy of 74%. Used pairwise RBF kernel SVM model for the classification of text into positive, negative or neutral sentiments. (JavaScript, Node.js, Sklearn)

Hand Gesture Recognition System *Aug 2015 – Oct 2015*
- Developed an application for detecting hand movements. Based on the hand movement, specific operations such as controlling the volume and movements, were performed in applications like VLC media player and games like Pacman. (C++, OpenCV)

PUBLICATIONS

- Gopalakrishnan, Gopakumar, Aithal, Madhusudhan M., & Pasala, Anjaneyulu (2018). Visual Analytics of Organizational Performance Network. *Proceedings of the 23rd International Conference on Intelligent User Interfaces Companion*. *Link*
- M. R., Anala, Aithal M., Madhusudhan, D. C., Jeevan, & K. R., Kartik (2016). Comparative Study of Computationally Intensive Algorithms on CPU and GPU. *International Journal of Applied Engineering Research*, *11*, 2996–2999. *Link*