Ramya Thiyagarajan

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Summary

Innovative biomedical engineer pursuing a Master's degree, with expertise in data science and machine learning. Demonstrated leadership in project management and team collaboration, successfully developing software solutions and MLOps pipelines to advance healthcare technology.

Education

Master of Science in Biomedical Engineering, Case Western Reserve University, August 2023 - Present

Courses: Introduction to Musculoskeletal Biomechanics, Movement Biomechanics & Rehabilitation, BioDesign, Technology Marketing Strategy, Statistical Methods

- Served as Master's representative for Biomedical Engineering Department
- Working as TA for Senior Design and helping teams execute designs for different biomedical problems *Final Project*: Working on building deep learning neural network model for Parkinson's disease data to identify the level of rigidity in the affected patients

Master of Science in Biomedical Engineering, Newcastle University, September 2021 - September 2022

Courses: Introduction to Tissue Engineering, Orthopaedic Engineering, Medical Device Regulatory Requirements Final Project: Led the case study on 'Effects of Orthopaedic Implants in Children' to establish the necessity of child-specific implants manufacturing and regulations

Post Graduate Program in Data Science and Engineering, Great Learning, December 2109 - August 2020

Courses: Python Programming, Statistical Methods for Decision Making, Supervised and Unsupervised Machine Learning, Data Visualisation using Tableau

Final Project: Worked on predicting whether a diabetic patient is getting re-admitted after the administration of prescribed medications by building different machine learning models and fine-tuning them

Bachelor of Engineering in Biomedical Engineering, Anna University, August 2012 - May 2016

Courses: Anatomy and Human Physiology, Biomechanics, and Biomaterials and Artificial Organs Final Project: Worked on the 'Analysis of Voice Parameters for Diagnosing Parkinson's Disease' to detect Parkinson's disease at an earlier stage by generating an algorithm to analyze different parameters from voice signals using MATLAB

Work Experience

Intern, COAPT, Chicago May 2024 - August 2024

Job Duties: Developed and implemented an MLOps pipeline to automate and streamline the controller update process

- Established a working MLOps pipeline and monitored it with real-time data
- Documented and presented the work

Analyst, The Math Company, Bangalore, September 2020 – July 2021

Job Duties: Worked with clients who are giants in the technology space and with leading healthcare providers based out of the U.S.A. and designed ML algorithms and created dashboards to solve their business problems

- Interacted with clients and managed my team to allocate tasks, ensuring smooth and timely delivery of projects
- Assisted a client in establishing a database and structure to address business challenges

Senior Software Engineer, Capgemini, Mumbai, January 2017 – February 2019

Job Duties: Worked with GE Healthcare and ST. Jude Medical (Abbot) customers where I was involved in the development of software packages for a cardiac monitoring system and the testing of a radiography web-based application

- Team was awarded as the 'Best Team' in 2017 at Capgemini
- Acquired ownership of 5 different modules and conducted knowledge transfer sessions on my modules
- Automated the tracking process which saved time and increased efficiency in tracking

Skills

Programming Skills: C, C++, Python, MATLAB
Database: MySQL, and Unsupervised ML Unsupervised ML Algorithms, Statistics, Azure, Databricks
Data science/ ML: Supervised ML PowerBI, Tableau, Jira, HP ALM
Databricks