ADITYA MATHUR

Email: axm180195@utdallas.edu | Website: https://adityamathur.dev | Mobile: 214-697-8324

Education

THE UNIVERSITY OF TEXAS AT DALLAS, Richardson, Texas — Expected May 2021
Master of Science in Computer Science, **GPA 3.66/4**

GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY, Delhi, India — May 2019
Bachelor of Technology in Computer Science and Engineering, **GPA 8.32/10**

Work Experience.

Software Engineer Intern, Defense Research and Development Organization, Delhi, India — Jun2017 – Aug 2017
Worked in Defense Terrain and Research Laboratory and implemented Risk Analyzing tool which identifies the areas with higher probability of a disaster. Implemented the same application using MCDA and Euclidean distance method.

Projects

Multi-Dimensional Search
Implemented a search algorithm like the ones used in e-commerce websites, having thousands of products with unique ID, price and description of its own. Organized the data using TreeMap and obtained insertion, deletion, searching, modifications and sorting operations using HashMap and TreeSet. The algorithm performs said operations on hundreds of thousands of entities within seconds.
Skills used: Java, Data Structures

Stock Exchange Web Application
Created a stock exchange web application that allows users to buy and sell stocks. Developed a scalable 3-tier responsive web application based on SOA principals. Also developed backend RESTful APIs for stock trading, user profile management and bank transactions. Made asynchronous AJAX calls to Stock brokerage web services for fetching data.
Skills used: HTML, CSS, Ajax, PHP, JavaScript, jQuery

B+ Tree Indexing
Implemented B+ Tree Indexing that reads a text file containing data and builds the index, treating first n characters as the key. The program supports basic functions like creating an index file, finding a record by the key, inserting new text record and list sequential records.
Skills used: C++

Library Management System
Created a Java based GUI application for library management system to maintain records of book issue, book return from student, Stock Maintenance, Catalog and book search to be computerized. The GUI of application was made using Swing framework and the data was maintained in a MySQL database.
Skills used: Java, Swing, MySQL

Comparing accuracy of SVM, CNN and ANN on an Image Dataset
Compared the accuracy of SVM, CNN and ANN to identify human emotions on Kaggle fer 2013 dataset. Results obtained showed that CNN has the highest accuracy of 91%. Further optimized the parameters of learning model and achieved high accuracy of up to 94%.
Skills used: Python, Machine Learning, SVM, ANN, CNN

Technical Skills

Languages	: Java, C, C++, Python
Web Technologies	: HTML, XHTML, CSS, Bootstrap, PHP, AJAX, JavaScript
Operating Systems	: Windows, MS DOS
Databases	: MySQL, MongoDb
Frameworks & Tools	: React, Node.js, jQuery, Bootstrap, Keras, Git