DARSHAK RAIRAKHIA

Arlington, TX . (682)-556-2681 . darshakdeepan.rairakhia@mavs.uta.edu . https://www.linkedin.com/in/darshak-rairakhia/ .
https://darshakrairakhia.wordpress.com/

SUMMARY

Analytical and Proactive software engineer professional with expertise in Web Development, Data Mining, Operating Systems, and Machine Learning. Seeking full-time opportunities as a software developer or a full-stack developer.

WORK EXPERIENCE

Summer Intern May 2015 - June 2015

Nelco Ltd., Mumbai, India.

- Built a web interface for the backend database using HTML, CSS, and PHP for the VSAT technology team.
- Validation for front-end was done using HTML and JavaScript while back-end validation was done using PHP.
- Studied and analyzed different types of VSAT antennas. Created a full-fledged report of the project for the client.

ACADEMIC PROJECTS https://github.com/Darshak1997

Chat Application https://github.com/Darshak1997/Chat-Application January 2020 – March 2020

- Exploring Multi-Threading and socket module by creating a chat application with a single server and **7 clients**.
- Clients can either unicast the message, multicast it, or broadcast the message by posting messages on the GUI.
- Clients receive messages with proper time stamp and name of the sender, all this was accomplished using Python.

Web Design and Development January 2020 – April 2020

- Creating a database-driven website using HTML, CSS, JavaScript, and MySQL with PHP.
- Developed personalized pages for users with CRUD operations and access control.
- Migrated the website to Laravel where Client-Side validation was done using HTML and JavaScript while Server-Side validation was done using PHP. Deployed the website on UTA Cloud.

Movie Search Engine https://github.com/Darshak1997/Movie-Search-Engine September 2019 – November 2019

- Built a web application and a ranking algorithm using TF-IDF to rank the top **10 related movies** to a given user query.
- Also built a Naive Bayes classifier using Python to classify the movie genre of the given query using Flask for communication.
- Built a pickle file to cache the inverted index document to reduce the searching time from **10 minutes to 3 seconds** per query.
- Accuracy was **43%** when used the KNN algorithm and then improved the accuracy to **53%** by using Naïve Bayes Classifier.
- The dataset used for this had **45,000 movies** with a subset of **100,000 ratings** from **700 users**.

Heap Management https://github.com/Darshak1997/Heap-Management-Strategies October 2018 – November 2018

- Implemented a library that interacts with the operating system to perform heap management using C and Linux.
- Deduced which method is the optimal way to store a block of data using memory management algorithms which are first fit, next fit, and best fit.
- Parameters for checking the best strategies were reusing free block, amount of coalescing, and speed.

Parallel Programming https://github.com/Darshak1997/Parallel-Programming September 2018 – October 2018

- Designed a program that would help a professor run his office hours without any concurrency issue.
- Coded in C using mutex to protect shared resources and semaphores for signaling from one task to another.
- It was designed to handle **1000 students** from **2 different classes** and was limited to **3 at a time**.

EDUCATION

- **The University of Texas at Arlington,** Arlington, Texas August 2018 – May 2020
  Master's in computer science and Engineering GPA: 3.5
  Relevant Coursework: Data Mining, Software Testing, Machine Learning, Neural Networks, Distributed Systems, Operating Systems, Data Analysis and Modelling Techniques, Computer Architecture, Design and Analysis of Algorithms, and Web Data Management.
- **Mumbai University,** Mumbai, India August 2014 – June 2018
  Bachelor of Technology in Electronics Engineering

SKILL SET

Tools: Jupyter Notebook, Spyder, Eclipse (Junit, JaCoCo), Atom, PyCharm, Visual Studio Code.

Languages: (Intermediate) Python, C, C++, MySQL; (Basics) Java, Shell Scripting, Assembly, MATLAB.

Data Science: NumPy, Pandas, Matplotlib, Scikit Learn, TensorFlow, Keras, NLTK.

Web Technologies: HTML5, CSS3, JavaScript, PHP, Laravel, Node.js, ExpressJS, jQuery, Bootstrap, RESTful, AJAX.

Platforms: Ubuntu, Windows, Arduino, Rasberry Pi.

ACTIVITIES

- Participated in UTA Hackathon and developed a movie search and ranked website.
- Team member at Panera Bread. Responsible to provide excellent customer service, manage cash, and prepare and serve high-quality food.