

DARSHAK RAIRAKHIA

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Work Experience

Summer Intern

May 2015-June 2015

Nelco Ltd., Mumbai, India.

- Worked as a Summer Intern with the VSAT technology team.
- Created a web interface for back end database using HTML, CSS, and PHP.
- Adjusted networking parameters so that a stable network will be achieved at the client side.
- 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 using Socket Programming

January 2020 – March 2020

- Exploring Multi-Threading and socket module by creating a chat application with single server and multiple clients.
- Clients can either unicast the message, multicast it or broadcast the message. Clients post messages on the GUI (created using simple Tkinter package). 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. 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 using HTML and CSS and a ranking algorithm using TF-IDF to rank 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. Used 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 KNN algorithm and then improved the accuracy to 53% by using Naive Bayes Classifier.

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 are 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

- **University of Texas at Arlington**, Arlington, Texas

GPA: 3.55

Master's in computer science and Engineering

August 2018 – May 2020

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

B.Tech – Electronics Engineering

August 2014 – June 2018

SKILL SET

Tools: Jupyter Notebook, Spyder, Eclipse (JUnit, JaCoCo), Atom, PyCharm

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

Data Science/Machine Learning: NumPy, Pandas, Matplotlib, Scikit Learn, TensorFlow, Keras, NLTK

Web Technologies: HTML, CSS, JavaScript, PHP, Laravel, Node.js

Platforms/OS: Ubuntu, Windows, Arduino, Raspberry Pi.

CERTIFICATION

Industrial Python Programming by Eduvance (ARM University Program Training Partner)

December 2016

- Python basics and game development using Pygame and IoT Data Analytics using Python.

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.