

DARSHAK DEEPAN RAIRAKHIA

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SUMMARY

Analytical and motivated software engineer professional with academic and technical 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

Research Intern

June 2020 - Present

University of Texas at Arlington

- Working on an ongoing research project of software testing using different testing tools.
- Developing a tool to generate Single fault failures for logical expressions under the supervision of Dr. John H Robb.
- The communication between the user and the tool is done by using a GUI. This tool is developed using Java Programming.

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 achieved using HTML and JavaScript while back-end validation was achieved 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>

Campgrounds Website <https://github.com/Darshak1997/WebDevelopment>

May 2020 - June 2020

- Built a full-stack application called Yelp Camp. The technologies used are HTML, CSS, JavaScript and Node.js.
- All the campgrounds and comments on a post has CRUD operations with access control.
- Routing is achieved using RESTful APIs and the database used for storing is MongoDB. Used PassportJS for authentication.

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.

Movie Search Engine <https://movie-mining-engine.herokuapp.com/>

September 2019 - November 2019

- Developed a full-stack application which had 3 different phases. All three phases used Python as backend and HTML, CSS and JavaScript as front end and Flask for communication. Searching time was an average of **3 seconds**.
- Phase 1 Included text-search which searched for movies using tf-idf formula to rank 10 related movies to a given user query.
- Phase 2 Included Genre Classification which used Naïve Bayes Classifier to classify the movie with respect to a user query.
- Phase 3 Included Image captioning which generated the caption using Inception V3 model and search the related image.

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.
- Analyzed 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 analyzing the best strategies are reusing free block of data, amount of coalescing, speed.

Parallel Programming <https://github.com/Darshak1997/Parallel-Programming>

September 2018 - October 2018

- Designed a tool that would help a professor run his office hours without any concurrency issue using C programming.
- 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

August 2018 - May 2020

Master's in computer science and Engineering

GPA: 3.5

Relevant Coursework: Data Mining, Software Testing, Machine Learning, Distributed Systems, Operating Systems, Data Analysis Techniques, Analysis of Algorithms, and Web Data Management.

- Mumbai University**, Mumbai, India

August 2014 - June 2018

Bachelor of Technology in Electronics Engineering

SKILL SET

Languages: Python, C, C++, Java, Shell Scripting, Assembly, MATLAB.

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

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

Databases: MySQL, MongoDB

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

Platforms: Ubuntu, Windows, Arduino, Raspberry Pi.

ACTIVITIES

- Participated in Hackathon and built a movie recommendation website where our team was placed among the top 5 teams.