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 engineer or a full-stack developer.

WORK EXPERIENCE

Software Engineer, *University of Texas at Arlington*   June 2020 - Present
- Created a Software testing tool to generate Single Fault Failures for logical expressions using **Java**.
- Responsible for adding CRUD functionalities to a Web application which provides service of education for virtual education.
- Developed, maintained, and enhanced code using best practices in software engineering.
- The tech stack used to build this application is **Php** and **Laravel** with a **SQL** database and **React** for front-end.

Research Volunteer, *KJSCE*   July 2017 – June 2018
- Responsible for developing a software for an embedded system using **Arduino** as a development environment.
- Enhanced programming and object-oriented skills in **C++** and in Computer networks including TCP/IP and **HTTP** protocols.
- Implemented region-based image segmentation to help collaborate with object detection using **Python**.

Web Developer, *Nelco Ltd.*   April 2016 – June 2016
- Designed a Web Interface to get the subscription data from the clients of the VSAT technology team.
- Frontend was developed using **JavaScript** while backend was implemented using **Php** with a **MySQL** database.
- Implemented **python** script to send thousands of emails to the clients that are subscribed to receive VSAT services.

ACADEMIC PROJECTS https://github.com/Darshak1997

Todoist Clone using React https://github.com/Darshak1997/Todoist-Clone   October 2020
- Created the popular Todoist application from scratch using **React** (Custom Hooks, Context) and SCSS for styling.
- Worked with **Firebase** to store the data and testing was achieved using React testing Library (Unit and Integration testing).

Campgrounds Website https://github.com/Darshak1997/WebDevelopment   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 Passport.js for authentication.

Chat Application https://github.com/Darshak1997/Chat-Application   March 2020
- Exploring Multi-Threading and socket module by creating a chat application with a single server and 7 clients using **Python**.
- Clients can either unicast the message, multicast it, or broadcast the message by posting messages on the tkinter GUI.

Movie Search Engine https://movie-mining-engine.herokuapp.com/   November 2019
- Built a full-stack application that used **Python** for backend, **JavaScript** for frontend and **Flask** for communication.
- Phase 1 involves text-search that searches for movies using the tf-idf algorithm to rank top 10 movies to a given user query.
- Phase 2 contains Genre Classification of the movie with respect to a user query. Page load time of an average of 3 seconds.

Heap Management https://github.com/Darshak1997/Heap-Management-Strategies   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   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   May 2020
  MS in Computer Science and Engineering   GPA: 3.5
  Coursework: Software Testing, Machine Learning, Distributed Systems, Analysis of Algorithms, and Web Data Management.
- **Mumbai University,** Mumbai, India   June 2018
  Bachelor of Technology in Electronics Engineering

SKILL SET

Languages/Systems: Python, C/C++, Java, JavaScript, C#(.Net), Shell Scripting, MySQL, Apache Kafka.
Web Technologies: HTML5/CSS3, PHP, Laravel, Node.js, ExpressJS, jQuery, RESTful, React, ASP.NET Core.
Databases: SQL, MongoDB, Redis, Firebase
Tools: Jupyter Notebook, Spyder, Eclipse (Junit, JaCoCo), Atom, PyCharm, Visual Studio Code.
Platforms: Ubuntu, Windows, Arduino, Rasberry Pi.

ACTIVITIES

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