Suman Majjari

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Education

Texas Tech University

Aug. 2023 - May 2025

Master's in Computer and Information Sciences, CGPA - 3.5

Lubbock, Texas

Experience

IIITDM Kancheepuram University

Chennai, TamilNadu

Full Stack Web Developer Intern

June 2022 - Aug. 2022

- Led a team of 4 in developing web modules for a university portal using PHP to help 150+ employees manage data.
- Used Bootstrap and CSS to create responsive designs for 10 web pages, integrating AJAX for real-time communication.
- Designed RESTful APIs to manage employee data and optimized MySQL connectivity using PHP's MySQLi extension.
- Applied hierarchical role-based access control with inheritance to secure 5 access levels and enable granular permissions.

Research Assistant Aug. 2022 – May 2023

- Assisted in development of the front end of a mobile application for iOS/Android using Dart and the Flutter framework.
- Worked with Google Firebase to manage user inputted data across multiple platforms including web and mobile apps.
- Collaborated with team members using version control systems such as Git to organize modifications and assign tasks.
- Utilized Android Studio as a development environment in order to visualize the application in both iOS and Android.

Projects

Gym Reservation Bot | Python, Selenium, Google Cloud Console

January 2021

- Developed an automatic bot using Python and Google Cloud Console to register myself for a timeslot at my school gym.
- Implemented Selenium to create an instance of Chrome in order to interact with the correct elements of the web page.
- Created a Linux virtual machine to run on Google Cloud so that the program is able to run everyday from the cloud.
- Used Cron to schedule the program to execute automatically at 11 AM every morning so a reservation is made for me.

MediaHUB | Node, MongoDB, Express, JavaScript

Jan. 2024 - Apr. 2024

- Developed a web app for exploring digital media using Express.js and Node.js with responsive design and real-time data through RESTful APIs.
- Built an efficient asynchronous comment system with AJAX for threading and file uploads using Multer middleware.
- Implemented robust secure user authentication with Passport.js, enabling personalized ratings and session management.
- Designed a scalable MongoDB database infrastructure with Mongoose to support CRUD operations, deployed on Heroku.

MST Visualizer and Time Analysis | Visualisation, Python and DSA

Aug. 2023 - Nov. 2023

- Implemented Borůvka's, Reverse-Delete, Prim's, and Kruskal's MST algorithms in Python, optimizing Union-Find with path compression and rank heuristics for efficient edge selection.
- Performed extensive benchmarking of the 4 MST algorithms across dense, sparse, and average graph types using timeit, validating empirical complexity through 1000+ iterations.
- Built a robust MST visualization framework with NetworkX and Matplotlib, emphasizing critical edges and weight distributions for insightful algorithm comparison.

Technical Skills

Languages: Python, C, C++, HTML, CSS, JavaScript, PHP.

Databases: SQL, MySQL, PostgreSQL, MongoDB.

Frameworks: MERN Stack, React.js, Node.js, Express.js, Bootstrap.

Developer Tools: VS Code, PyCharm, CodeBlocks, Canva, Git, GitHub, Postman, JIRA, PhpMyAdmin.

Operating Systems: Linux, Windows, Mac OS.

Awards & Achievements

- Secured 1st rank at Texas Tech University by Solving 500+ Problems on GeeksforGeeks.
- Honored with the highly Competitive Computer Science Department Scholarship, granted for outstanding academic achievements and a demonstrated commitment to excellence in the field.
- Awarded Graduate School Competitive Scholarship for the first year of my Master's at Texas Tech University.
- Received a Certificate of Excellence in Design and Innovation for my team's exceptional academic project.
- Secured the Foundation for Excellence (FFE) scholarship for all four years of my Bachelor's as a top student.