ARCHIT BUBBER

+91-9667607080 | architbubber07@gmail.com | https://archit.tk

Summary

Pursuing bachelor's in Computer Science Dept. of MSRIT, I am interested in problem solving and developing faster and optimised algorithms.

Skills

- **Fundamental Concepts:** Object Oriented Programming & Design, Data Structures such as Graphs, Trees. Algorithms (such as Sorting, Searching, Traversals etc.), Relational Databases and SQL, Mutex, Deadlocks
- **Languages:** Java (Intermediate), C(Intermediate), Python
- **Others (Basic):** HTML, CSS, JavaScript, Node.js, React JS, w3.css, bootstrap.

Academic Projects and Research

Academics Projects-

- **Database management tool for college (MSRIT) data(On-going)-**
  - Developed the front end for MSRIT database management tool. Further, also designed an algorithm for early detection of duplicate entry into the database to prevent error generation during insert.
  - Developed the update functionality which included updating the primary key and updating the access for databases based on department, faculty hierarchy.
- Developed a Sudoku puzzle project using C.
- Developed an audio reactive keyboard lights script using Python.

Web Development Projects-

- Developed my portfolio website using w3.css for responsive web designing and developed static website and hosted on GitHub link.
- Developed a live location tracking website TrackMeRide which provided real time location and speed. It used "MapMyIndia API" for displaying the map and marker. Further, react was used for updating the marker position without refreshing page.
  - Developed using custom CSS for responsive web designing. Node.js was used in the backend for processing requests, redirecting, and providing location data to frontend. The app was deployed using Heroku link.

Research Projects-

- Developed an application using python for programming Neopixel LEDs to display custom graphics and images. The matrix could be generated as per user demand style/pattern.
- **Microprocessor Projects-**
  - **Developed an Emergency Fall Detector wristwatch-**
    - Detected fall by calculating accelerometer and gyro value changes. Further, alerted about the accident to listed people by sending GPS coordinates to respond
    - Used mpu6050, NEO6M, GSM800a and Arduino LilyPad.
  - **Developed a Maze Solving Robot as part of a robotics contest-**
    - Implemented using LRSB algorithm, and calculated path using discreet mathematics equations like LBL=S.
    - Aimed to achieve the shortest path in least time.
  - **Developed drone and airplane using Atmel as flight controller-**
    - Built a transmitter and receiver using Nrf24l01 with ranges up-to 1km and minimizing time consumption and maximizing efficiency.
    - Further, used MultiWii source code for flight controller and custom tuned PID's for best stability. It was also used for ack capability, live battery voltage monitoring and safety warnings.

Extra-Curricular and Others

- Active member of various community groups which educate under-privileged kids.
- Represented college at VTU south-zonal sports meet in 10km race.
- Core member and organizer of various treks as part of nature's club.
- Winner of state level bike championship under 200cc category organised by KTM in 2017.