MRIDULA GURUPRASAD NARANG

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Education

MS Ramaiah University of Applied Sciences — Bangalore,India
B.Tech Computer Science and Enginerring — Jun 2024
CGPA: 9.2/10

Vidya Mandir Ind. PU College — Bangalore, India
PCMB — 2018 – 2020
95% in 12th / IInd year PUC from Karnataka State Board

Sindhi High School — Bangalore, India
94% in class 10 from the Central Board of Secondary Education (CBSE) — 2005-2018

Experience

Genspark — Bangalore, India
.NET Full Stack Developer Intern — Sept 2024 – Present

- Mastered the core concepts of the .NET Framework, gaining a solid foundation in its applications for building robust web applications.
- Developed a three-layer architecture using dependency injection to create scalable and maintainable applications.
- Built RESTful APIs following the three-layer architecture, integrating with MySQL database using Entity Framework.
- Conducted API testing using Swagger, ensuring functionality and performance meet specified requirements.
- Implemented unit testing for projects to validate code quality and enhance reliability.

Skills & Interests

Programming Languages and Frameworks: Python, C#, NodeJS, Flutter, .NET

Web development: HTML5, CSS, BootStrap, ExpressJS, REST API

Database Management: MySQL, MongoDB, Firebase, SQL Server Management Studio (SSMS)

Data Analysis and Machine Learning: PowerBI, Pandas, NumPy, Regression Models, Neural Networks, Computer Vision

Personal Projects

Mobile application for yoga monitoring and correction

MediaPipe | Django | Flutter | Firebase | Dynamic Time Wrapping (DTW)

- Developed a posture monitoring system using a Mediapipe and DTW, comparing user poses with mentor-specified angles to provide real-time feedback on asana correctness.
- If the posture or angle of the user's asana is incorrect, the model identifies the specific part of the asana that is incorrect and offers guidance on how to correct it.
- This system facilitates users to engage in online yoga sessions with comprehensive guidance, offering a cost-effective alternative to traditional instruction.

Swara and Raga Analysis in Carnatic Music

Django | Librosa | Python

- Designed a Carnatic music raga identification system using digital signal processing techniques and customized algorithms.
- Implemented algorithms for swara extraction and raga identification using frequency analysis, clustering, and matching techniques.

- Achieved accurate identification of swaras and ragas in Carnatic music recordings, demonstrating the potential for improved music analysis tools.

Hospital Management System

HTML 5 | CSS | Bootstrap | MongoDB | NodeJS | REST API

- Created a user-friendly web application facilitating seamless scheduling of appointments with doctors across multiple hospital branches, offering services like appointment booking, lab services, and X-ray/radiology services.
- Integrated essential features for booking, cancellation, and feedback submission, enhancing overall user experience and optimizing healthcare processes to optimize customer satisfaction and convenience.

Research and publications

Taylor and Francis **08/23**

Design Thinking: A modern approach

Authored a chapter on integrating Design Thinking with AI/ML to optimize problem-solving and innovation in the AIML domain.

IEEE **04/24**

A Blockchain-Based Approach to Counterfeit Prevention

Published a paper on using Blockchain technology to develop a counterfeit prevention system, enhancing product credibility and protecting manufacturers from financial and reputational damage.

IEEE **05/24**

Zen Mentor: A Yoga Monitoring and Correction Application

Developed a mobile app integrating MediaPipe for detailed yoga posture analysis, enhancing practice accuracy and safety by monitoring the full sequence of movements, promoting accessible and effective yoga sessions.

Taylor and Francis **06/24**

Comprehensive Survey on Artificial Intelligence in Blockchain: A Futuristic Integration

Authored a chapter on integrating AI, Blockchain, and IoT to mitigate technological drawbacks and enhance system performance, exploring their combined impact on real-time digital services.

Taylor and Francis **06/24**

Sangeeta Sarangha: AI Model for Identifying Carnatic Raga

Submitted a manuscript on developing a raga identification system using digital signal processing and customized algorithms for enhanced music analysis.