**SOORYA S**

**EDUCATION**

* **B.Tech Computer Science and Engineering**

**CGPA – 9.07 / 10 2019-2023**

Amrita Vishwa Vidyapeetham

* **Class 12** – 89.6% **2019**

Institution:

* **Class 10** – 90.6% **2017**

Institution:

**TECHNICAL INTERESTS**

Machine Learning, Web Development

**PROJECTS**

**Legal Knowledge Graph based Recommendation System**, 2022 (currently working)

Final year research project on applying Knowledge Graph on Legal domain to improve similar case

recommendations and citation link prediction. Focus primarily on Motor Vehicle Department

cases to build the domain specific knowledge graph. Heading a group of four in this project.

**Satellite Image Processing for predicting distance from camera**, 2022 (currently working):

Ongoing research project along with a scientist from Indian Space Research Organization on Satellite Image Processing - to identify and calculate the position of non-cooperative satellites - using Quantum Deep Learning.

**IoT based Women Safety Band**, 2022: Using IoT, Raspberry Pi and associated sensors, built a Women Safety Band which, when unusual heart rates are detected, if the user is in danger, records short video clips and sends them to the server to create evidence of violence/assault.

The band also sends SOS messages to the emergency contacts with the live location of the user.

Built supporting backend using Firebase and IFTTT to trigger alerts using voice commands through Google Assistant.

**Events Application**, 2021: Built two separate applications (Amritotsavam, Amrita Events) for Amrita to manage events of different categories. Built an application for Amritotsavam talent search to manage event schedule and results. Built another application to manage events hosted for Amrita specific events. Both applications were built using Flutter, NodeJS, MongoDB and Socket.IO/Websockets were used fore live refresh of data. Amritotsavam application was used university wide for smooth conducting of events.

**Breast Cancer Survival Analysis using Cluster Analysis**, 2021: Using the METABRIC dataset from a Canada-UK based project which holds records of around 1900 breast cancer patients. Cluster analysis was performed and clusters were built around an optimal number found using elbow graph method. KMeans is used, clusters were built which can be used to estimate prognosis of patients.

**App for Early Alzheimer's detection and integrated care**, 2021: Developed an Android

application for early Alzheimer's detection and integrated care using Java, Android and NodeJs.

Used interactive memory games to detect Alzheimer's by analyzing the user's performance over weeks and months.

**TECHNICAL SKILLS**

Flutter, NodeJS, MongoDB, Java, Firebase, Python, C, HTML, CSS

**INTERNSHIP**

**Intern,** Accenture(Jun 2022 - Aug 2022)

Worked as security intern in Accenture Cyber Incident Response Team (CIRT).

Worked under forensics team.

Learned about forensic methods and how to use forensics tools like Encase.

Designed a procedure to parse WhatsApp data, WhatsApp databases and WhatsApp encrypted backup files for Android devices to recover deleted messages for forensic purposes.

**TIFAC Core Cyber Intern,** Amrita Vishwa Vidyapeetham, Tamil Nadu (Feb 2022 - June 2022)

Worked as Student Intern under the TIFAC Core Labs of Amrita (Cyber Security)

Built a dataset of encrypted MNIST images, encrypted using PRESENT and SPECK encryption algorithms. Further, built a CNN based multi-layer binary classification model which can classify encrypted images using the above encryption algorithms.

**Amuda Labs Intern,** Amrita Vishwa Vidyapeetham, Tamil Nadu (Oct 2021 - Feb 2022)

Worked as Student Intern under AmUda labs of Amrita for a funded project to collect data around the locality and analyze the wellness of the people in communities.

Built a mobile application using Flutter and designed a backend server using Node JS, MongoDB and Express. The application enhanced the data collection process by adding data validation before entry, an open to store data locally and good User Experience and Interfaces.

**ACHIEVEMENTS & HONOURS**

Third Prize in Smart City Hackathon, 2022: Built a 'Smart Medical Emergency detection and alert system’ as a team of four which uses videos from CCTV in streets to detect fall/accident using Image detection and alert nearby ambulance drivers with the location of accident.

Secured Third Prize among 300+ teams from around India in the Smart City Hackathon. Flutter was used for the frontend, Python, NodeJS and Express for the backend.

Android Workshop, 2022: Hosted an online Android workshop for 6 sessions under GDSC

(Google Developer Students Club), taught basics and REST API to juniors and got certified as an Android Educator by Google.

Flutter Workshop, 2022: Hosted a hybrid three day long workshop for Flutter, for juniors, hosted under GDSC. The workshop covered basic UI designs and connecting to the Internet.

HackBMU Hackathon, 2021: Participated and got into the top ten teams for pitching in an application called Benchmark Enigma for creating a virtual platform for college students to communicate and socialize. Built using Android, Java and Firebase.

**LANGUAGES**

English, Tamil