# Charan Kumar

Education

Amrita Vishwa Vidyapeetham

Sep 2020 – June 2024

Bachelor of Technology in Computer Science

 $Coimbatore, \ Tamil Nadu$ 

Sri Chaitanya College of Education

July 2018 - June 2020

MPC

Vijayawada, AndhraPradesh

Sri Chaitanya School

June 2018

MPC

Vijayawada, AndhraPradesh

Experience

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Software Engineer Intern

January 2024 - June 2020

Bengaluru, Karnataka

• Improved the chat management system by adding new fields (client id and account id) alongside the existing chat name field, Developed an API to fetch chatflows based on these parameters.

• Identified and resolved critical SonarQube vulnerabilities, enhancing the security and stability of the application.

• Developed unit test cases for critical components of the application using Jest, Achieved high code coverage by writing tests that covered various edge cases and scenarios.

## **Projects**

### Cross Regional Recipe Adaptation | Python, SNA, Gephi, NLP, GNN

May 2024

- Created a versatile recipe adaptation system that tailors recipes from Region X to meet the unique culinary preferences and ingredients of Region Y.
- Implemented various centrality measures to analyze ingredient networks.
- Conducted similarity analysis using the Jaccard similarity index to compare ingredient compounds, applied the Weisfeiler-Lehman isomorphism test to evaluate graph similarity and structure.
- Developed and trained a Graph Convolutional Network (GCN) model to predict relationships between ingredients and compounds, enhanced the model's performance by leveraging the vanilla graph autoencoder for unsupervised learning and feature extraction.

## Faculty Dashboard System | Jira, StarUML, React, PHP

June 2023

- Developed an online web application using React, PHP providing faculty with easy access to course information, student data, and timetables.
- Leveraged Jira for project management and StarUML for designing system architecture and diagrams, ensuring clear and efficient development workflows.

### Social Media Ads.Impact Analysis | python, Machine Learning

Jan 2023

- Analyzed the effectiveness of advertisements on social media platforms to determine their attention-grabbing potential and overall impact.
- Conducted preprocessing and feature engineering, removed outliers, and trained models using logistic regression, decision tree classifiers, KNN, Naive Bayes, and SVM. Evaluated model accuracy before and after scaling.
- Combined models using basic ensembling and advanced ensembling methods to improve model accuracy and generate more reliable predictions on social media advertisement impact.

#### Electricity Bill Payment System | MYSQL, HTML, CSS, StarUML, PHP

January 2022

- Developed an online web application for electricity bill payment system which helps the clients to keep track of their electricity consumption and billings.
- Created and normalized multiple tables to 1NF, 2NF, 3NF, and BCNF ensuring efficient data storage and retrieval and developed schema and ER diagrams for clear representation of database relationships.
- Enabled admins to generate monthly bills based on units consumed, with real-time notifications and announcements.

## **Technical Skills**

Languages: Python, C, HTML/CSS, JavaScript, SQL

Developer Tools: VS Code, GitHub, Eclipse, Sonar Qube, Docker

### Extracurricular

- Coordinated Gokulashtami event conducted by Amrita Vishwa Vidyapeetham.
- Participated in NSS camps and contributed to various community service initiatives such as Organizing and participating in clean-up drives, conducting tree planting activities to promote environmental sustainability.