Mohan Jinkala

mohanjinkala2@gmail.com www.linkedin.com/in/Mohan-Jinkala/ www.github.com/mohanjinkala2 (+91)-7989590543

Education

SVU College Of Engineering-Andhra Pradesh *Aug 2021 – April 2025*
Computer Science and Engineering CGPA:8.45/10

Narayana Junior College, Vijayawada *May 2019 – May 2021*
Intermediate, MPC Percentage: 94.3%

St.pauls English Medium High School,Rayadurg *Apr 2018 – Apr 2019*
X CGPA: 9.8 /10

Coding Profile

Leetcode : Profile
Solved More Than 350 problems,Participates in Contests,**Maximum Rating:1570**

TCS CodeVita Season 12 Link
Secured a Global Rank Of 1490 in TCS CodeVita Season 12.

Technical Skills

Programming Languages : C, Python,Java,SQL.
Data Structures & Algorithms : Strong foundation in analyzing, and implementing algorithms; proficient in solving complex computational problems with optimized data structures.
Course Work : Operating system,Database Management System,Machine learning,Data Analytics.
Low Level Design : object oriented programming,Design Principles,Design Patterns,Concurrency & Multithreading,Unified Modeling Language(Class Diagram).
Frameworks & Libraries : Pandas,Seaborn,Matplotlib,Sklearn.
Other : Team Leadership, Git,Github, Problem-Solving, Debugging, Scalability,logical thinking.

Work Experience

Indian Institute of Remote Sensing (IIRS), ISRO Remote | August-2024
Machine Learning For Geodata Analysis :

- Completed a hands-on training program focused on supervised and unsupervised Machine learning And application of Machine Learning in geospatial data analysis.
- I Worked on a project focused on weather prediction, where I applied data preprocessing techniques, explored feature selection, and trained various ML models to forecast weather conditions based on historical data.
- This model can predict the weather with accuracy of 97.3%, When we use the DecisionTree classifier.
- This model can support better decision making in sectors like agriculture, aviation, transportation, and event planning.
- Project Link

Projects

Parking Lot System Link *Low Level Design*

- Designed and implemented a scalable Parking Lot System using Object-Oriented Principles: Inheritance, Abstraction, and Encapsulation.
- Applied SOLID, DRY, KISS design principles for 1) clean separation of responsibilities, 2) modular structure, and 3) maintainable, extensible code.
- Used Factory Pattern for dynamic creation of vehicle and slot objects; Singleton Pattern to ensure a single ParkingLot instance ; Composition Pattern (ParkingLot -> Floor -> Slot) for flexible scalability ; Strategy Pattern to support pluggable payment methods (e.g. card, wallet).
- Developed core features: slot allocation, parking/unparking, payment handling, availability tracking.
- Achieved: clean, testable, readable, and future-extensible codebase.
- Tech Stack: Java, OOP principals, Design Principles, Design Patterns, UML (Class Diagram)

Search Suggestions System Link *Data Structures and Algorithm*

- Developed an auto-complete feature using a Trie Data Structure to suggest relevant product names as users type.
- Implemented lexicographical sorted word suggestion using DFS for Trie traversal, ensuring efficient suggestions.
- Achieved O(N*M) insertion and O(S*M) search time complexity, optimizing query performance.
- Designed for scalability, handling large product datasets in e-commerce platforms and search engines.
- Tech Stack: Python, Data Structures(Trie) and Algorithm(DFS).

Bank Customer Churn Prediction using SVM **Link** *Machine Learning*

- Developed a Support Vector Machine (SVM) model to predict customer churn using a bank customer dataset.
- Preprocessed data: loading data and handling unbalanced dataset(oversampled,Undersampled), handling missing values, encoding categorical variables.
- Detailed visualizations of data patterns and model performance were performed using Matplotlib and Seaborn.
- Tuned SVM models to improve model performance.
- The SVM tuned with oversampled data achieved the highest accuracy of 93%.
- Tech Stack: Python, Pandas,Matplotlib ,Seaborn,Sklearn.
- impact: provided early churn risk detection, helping banks optimize customer retention strategies.

Certifications

- **DSA With Python Certificate - Ybi Foundation** **Link** October 2023-December 2023
  Covered Data structures, Algorithms,Problem-solving,python.
- **Data Analytics With Python From NPTEL** **Link** January 2023-April 2023

  1) Covered Visualizations Of Data Using Seaborn,Matplotlib.
  2)Learned Interpolation And Extrapolation Of Data using Various Machine Learning Algorithms.

Positions of Responsibility

Cynosure Fest September 2023
Led a Team to conduct a technical coding round for More Than 100 participants.

Extra-Curricular Activities

- **Competitive Programming:** Actively participate in coding contests (CodeChef, LeetCode, etc.).
- **Public Speaking & Debates :** Engaged in debate competitions to enhance analytical and communication skills.
- **Sports & Teamwork :** Represented college in cricket tournaments, fostering teamwork and leadership.
- **Long Drives & Mountain Trekking :** Enjoy long drives and mountain trekking, which help build focus, resilience, and a sense of adventure.