

Mention the frameworks and technologies you are familiar with.

ANS. I have worked on Kaggle, Pycharm , Scikit-learn ,anaconda and google collab but I am efficient on Kaggle and anaconda. I am also proficient on working with python libraries like NLTK for LLMs , Seaborn and matplotlib for Data Visualization , Pandas for Data manipulation , Scipy and numpy for Calculations etc.

Mention 2 or 3 android-based projects that showcase your expertise in the field. Projects should have an adequate description about the problem statement, solution, ideology, and any efficient code parts.

ANS. Delivery Agent Navigation and Search Algorithms Integration

- Problem Statement:
Efficiently navigating a delivery agent through a 2D grid with obstacles requires finding the shortest and most cost-effective path quickly.
- Solution:
Created an Android app combining multiple search algorithms: A* for shortest pathfinding, Breadth-First Search (BFS) for simple unweighted exploration, Uniform Cost Search (UCS) for cost-based pathfinding, and Hill Climbing for local search optimization. This integrated approach allows flexible navigation and problem-solving for different scenarios.

- Ideology:
Leverage heuristic-guided and cost-sensitive search strategies to balance speed and optimality. Use classic AI algorithms to handle diverse routing challenges, encapsulating them in one integrated system for adaptability.

For code you can see it on GitHub:-

[Shivanshcoderpixel/Autonomous-Delivery-Agent-for-2D-Grid-Navigation](https://github.com/Shivanshcoderpixel/Autonomous-Delivery-Agent-for-2D-Grid-Navigation): This repository contains the implementation of an autonomous delivery agent designed for navigating a 2D grid city environment to deliver packages efficiently while avoiding static and dynamic obstacles. The project includes multiple path planning algorithms and a replanning capability for dynamic obstacles.

Stock Market Price and Trend Predictor

- Problem Statement:
Stock market prices are highly volatile and influenced by multiple factors, making accurate trend prediction difficult. The goal was to build an Android app to predict future stock prices and trends to help users make better investment decisions.
- Solution:
Developed an app using LSTM (Long Short-Term Memory) neural networks, which are effective for analyzing time series data like stock prices. The model was enhanced with sentiment analysis from social media to capture market sentiment. The ML model was deployed on the device using TensorFlow Lite, allowing real-time, offline predictions.

- Ideology:

Combine historical numerical stock data with qualitative sentiment analysis to improve prediction robustness. Executing the model on-device ensures low latency and respects user privacy by avoiding constant internet dependency.

- For code you can see it on GitHub:- [Shivanshcoderpixel/Stock-](https://github.com/Shivanshcoderpixel/Stock-Market-predictor-for-trends-and-price)

[Market-predictor-for-trends-and-price: It predicts the trends and the price of the stock by using past 10 years of data . There might be some fluctuation in the market due to external parties but It predicts trends accurately and works with efficiently for blue chip stocks.](https://github.com/Shivanshcoderpixel/Stock-Market-predictor-for-trends-and-price)