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A B2B SOLUTION FOR ADAPTING EV IN A NEW MARKET

AdaptEV

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The Problem —

Mitigating the Risk of Investment in EV Infrastructure

AdaptEV

Electric vehicles are becoming increasingly popular, prompting companies to invest in infrastructure to facilitate their use. we are trying to evaluate the profitability of this investment using data on electricity and oil consumption, as well as economic models that consider the future projections of electricity demand, battery cost and charging time, among other factors.

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Let's Talk about the Solution

ADAPTEV

Adapt EV is built as a one stop solution for any company looking to expand its EV sales to a new location.

- Existing demand
- Forecasting of future demand based on recent trends
  - Yearly growth in number of sales
  - Change in EV prices
  - Government subsidies offered
  - Social media clicks and interest
- Mapping out areas with a need of charging stations and how to make them accessible

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AdaptEV

What we are making

- Visualization on Indian Map(showing current market demand as well as future based on predictive modeling)
- Graphs (showing the factors affecting the market)
- Charging stations- where they exist and where further requirement is
  - Factors to be considered:
    - Land availability
    - Prices
    - Market Demand
    - Accessible area
    - Government regulations
    - Electricity access

Resources Required

- Datasets:
  - EV sales per year
  - Electricity usage growth
  - Growth in EV prices
  - State and central subsidies
  - Availability of plots for charging stations

Methodology

- Assembling and preprocessing data
- Visualize current market scenario
- Predictive model to estimate future demand
- Interactive Indian map
- AI model to map areas where charging stations are required

Data availability low: collect multiple datasets, extract useful attributes and map them into a single comprehensive dataset.

Presented with XMind

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The Approach

As part of our initiatives , we have planned for checking the percentage increase in datasets showing EV sales per year, datasets of electricity usage and growth so that outputs based on these parameters prove to be beneficial for the new EV startups/companies which are in the phase of launching their products for the Indian market in the near future.

We will be offering the visualization of current charging stations in India. We produce our valuable outputs based on following parameters such as land availability, prices, demand, land should be in a highly visited area, government regulations, electricity availability. Now, in order to make a full fledged software, we need to use important data like EV sales per year citywise, brandwise, electricity in households, state and central subsidies, existing charging stations, plot availability.

Methodology involved in will be preprocessing (assemble data from multiple datasets), build current situation graphs, predictive usage model, build choropleth with ability to zoom into cities, build model for estimating areas where charging stations are needed. And then, show all results filtered according to availabiltiy of land and its price.

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Intended Market

New startups looking to tap into the EV market

Existing EV manufacturers expanding to new cities

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UI & Development

- The user interface is developed using react and It is deployed on a CDN using vercel.
- We are currently using python-dash for our backend.
- The main app consists of an interactive choropleth map with the ability to zoom into cities and get the exact statistics of current market as well as future predicted trends.
- We also have a data page that allows one to download the datasets we have prepared.

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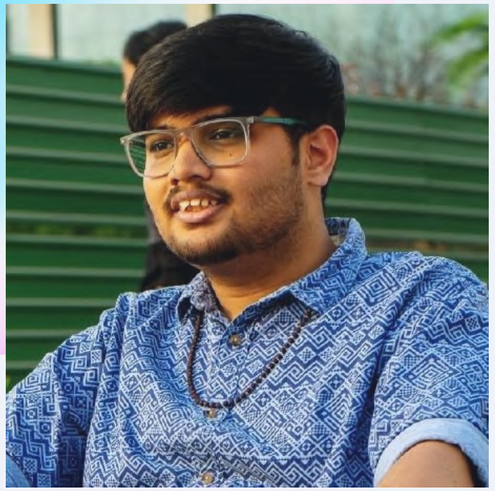
Meet the team



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“No data is clean, but most is useful”
– THANKS