RightPrice

AI-Based Priced Estimation System

By: Manmeet Gill, Sidarth Shahri, Manpreet Singh, Karthik Tella

Expo Topics

- **Problem and Solution:** Explain the problem we are trying to solve
- **Approach and Implementation:**
  - Data collection
  - Machine learning
  - Back-end and front-end applications
- **Demo:** An interactive demo at our table
- **Conclusion**: What we learned

Contributors: Sidarth

Problem and Solution

- **Problem**: No analytics available for second hand sales on online marketplaces
  - Consumer unfamiliarity with second hand product prices
- **Solution**: A user friendly tool that provides price analytics based on a machine learning model trained on web scraped ads from online marketplaces
- **Goals and Deliverables**:
  - Accurate data collection, cleaning and processing
  - A trained machine learning model
  - User friendly application
  - A project report detailing our efforts

Approach and Implementation

- Data Collection
- Data Cleaning and Preprocessing
- Applying Machine Learning
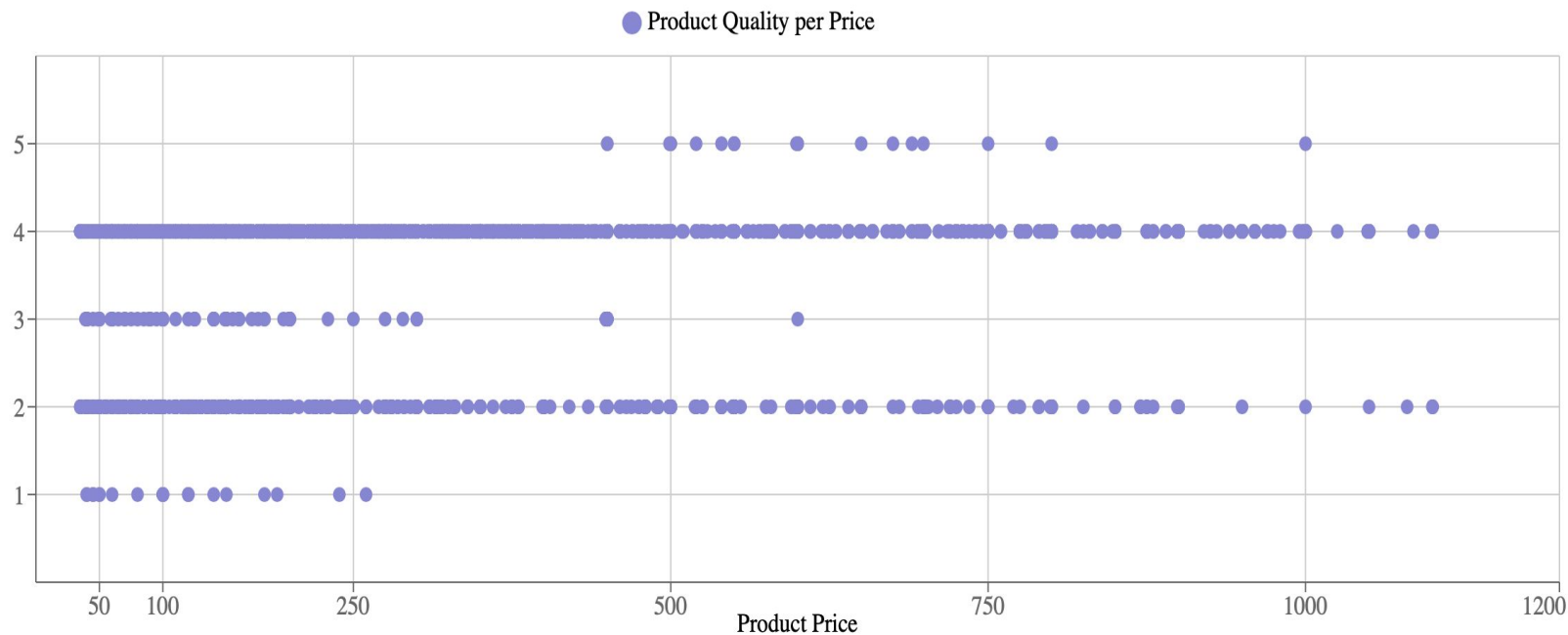- Making Backend API
- Front End Development
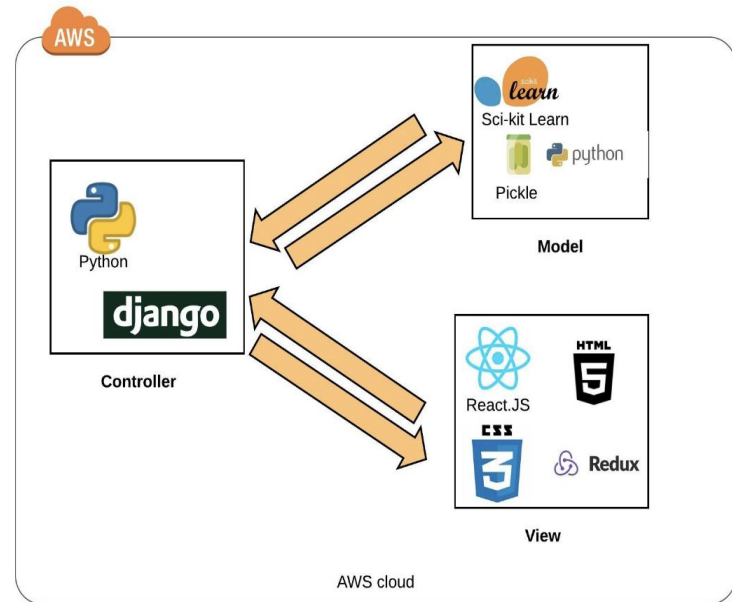
Dataset

BRAND	COLOUR	CONDITION	CONTRACT	MEMORY	MOBOS	MODEL	PRICE
Samsung	gray	like new	Sprint	256	android	S8 PLUS	$270.00
Blu	red	like new	Unlocked	16	android	Y85	$50.00
Samsung	Black	Good	Verizon	32	android	S10 plus	$745.00
Apple	gray	like new	T-Mobile	64	apple iOS	iPhone 8 Plus	$400.00
Samsung	white	excellent	Unlocked	64	android	NOTE 8	$70.00
Apple	white	like new	Unlocked	256	apple iOS	XR	$400.00
Apple	white	like new	Unlocked	64	apple iOS	6 PLUS	$220.00
Apple	black	good	Unlocked	32	apple iOS	6S	$150.00
Apple	rose	good	Unlocked	32	apple iOS	6	$110.00
Apple	black	excellent	Unlocked	32	apple iOS	6 PLUS	$155.00
Apple	rose	excellent	At&t	64	apple iOS	6	$140.00
Apple	black	good	Verizon	64	apple iOS	6	$135.00
Apple	silver	excellent	At&t	128	apple iOS	IPHONE 7	$225.00
Apple	white	Good	Unlocked	256	apple iOS	XS	$600.00
Apple	white	like new	Unlocked	128	apple iOS	IPHONE 7 PLUS	$275.00
Apple	white	like new	Unlocked	64	apple iOS	iphone 8	$365.00
Samsung	gray	excellent	T-Mobile	128	android	S10 PLUS	$180.00
Apple	white	excellent	At&t	128	apple iOS	IPHONE 7 PLUS	$400.00
Samsung	black	excellent	Unlocked	64	android	S10	$199.00

Contributors: Karthik,
Sidharth, Manmeet

Dataset visualizations

Demo

Live Link: https://master.dm8gjsj35mxwk.amplifyapp.com/
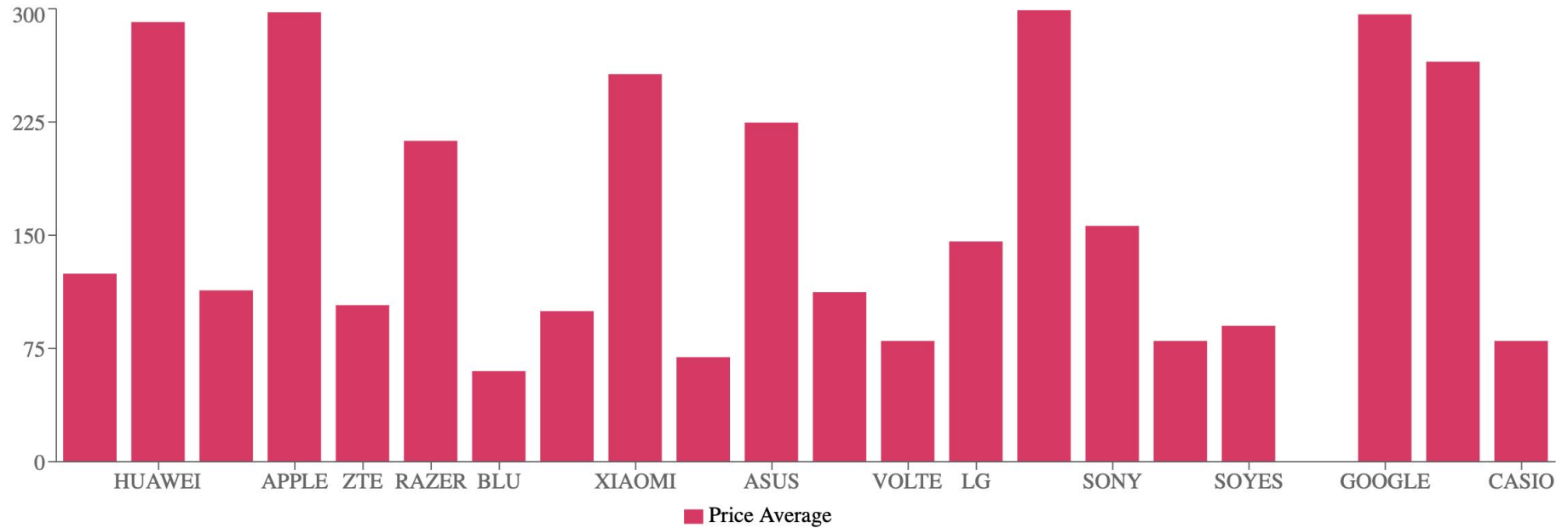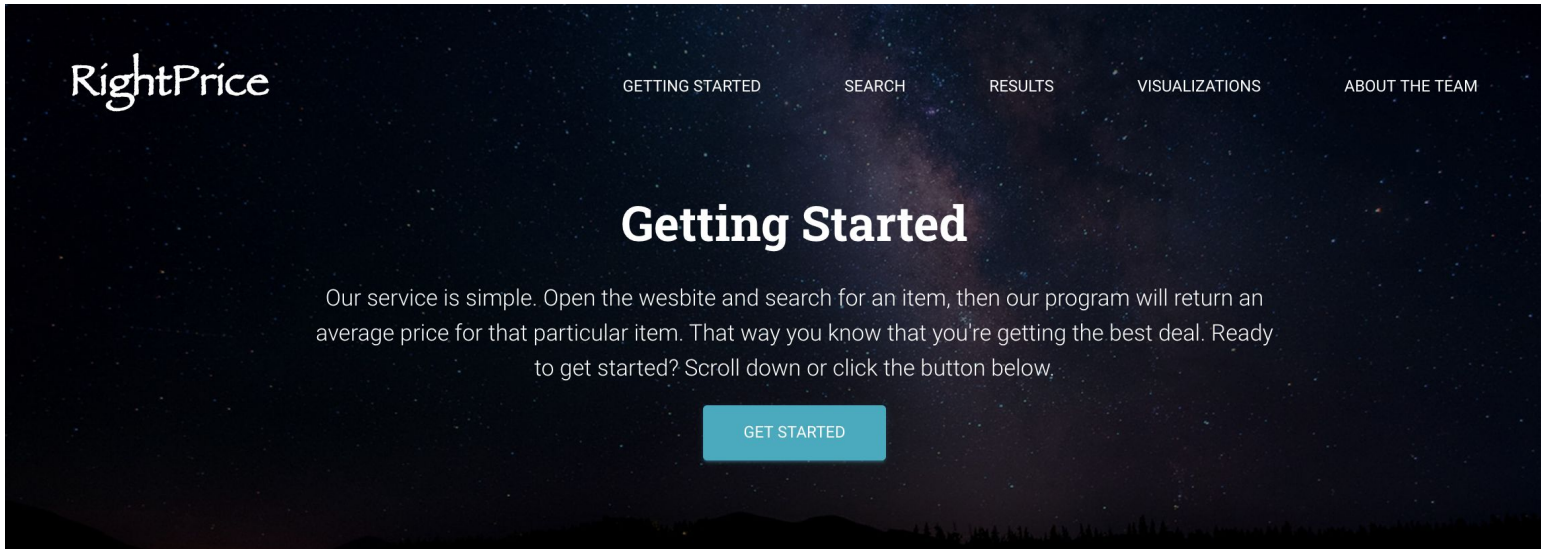
Demo

Search for an item:

Phone type:

Select a brand ⌄

Color:

Select a Color ⌄

Condition:

Select a Condition ⌄

Contract:

Select a Contract ⌄

Memory:

Select a Memory ⌄

Mobos:

Select a Mobos ⌄

Model:

Select a Model ⌄

SEARCH

Demo

Average Price of Iphone 6 plus

$189

Contributors: Manmeet, Sidarth

Conclusions

- We successfully implemented our design and delivered a working project and a report
- KNN is the best approach for regression on categorical values
- Categorical data needs to be preprocessed before fitting the model