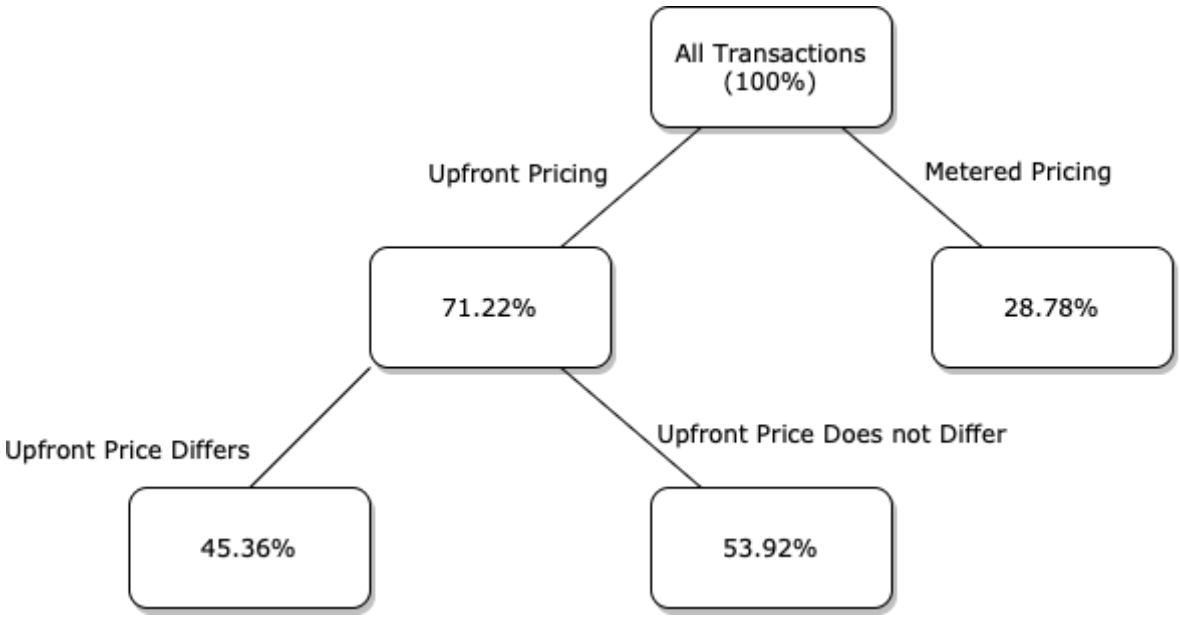
Motivation
Upfront pricing needs to be more accurate in order to avoid surprising customers.

Top Down view



- Upfront pricing is used for 71.22% of all transactions.
- 45.36% of times upfront pricing value differs from metered price by more than 20% value. Overall for 32% of the transactions, upfront pricing differs significantly from metered price.

Analysis Deep dive:

- Transactions with a value of 0 **distance** and 0 **duration** have highly differing upfront and metered prices. This captures 2% of the bad predictions.
- **Long Distance Rides (Distance** > 14000) does not have a good upfront pricing value. Percentage difference in pricing is over 110%. This captures 20% of the bad predictions.
- **Long Duration Rides (Duration** > 2009) does not have a good upfront prediction value. Percentage difference in pricing is over 110%. This captures 20% of the bad predictions.
- Transactions on **Weekends** (Saturday and Sunday) do not have a good upfront pricing value. Percentage difference in pricing is about 70%. This captures 27.5% of the bad predictions.

- **Device manufacturers** such as ITEL, TECNO, Infinix, Nokia, do not have a good upfront pricing value. Percentage difference in pricing is about 81%. This captures 21.6% of the bad predictions.
- **Device models** such as B1p, SM A520F, do not have a good upfront pricing value. Percentage difference in pricing is about 105%. This captures 4.5% of the bad predictions.
- **EU indicator** value is a good indicator to identify if a transaction has a good upfront pricing value or not. Percentage difference in pricing is about 91.5%. This captures 28.3% of the bad predictions.
- **GPS Confidence** of a device is a good indicator to identify if a transaction has a good upfront pricing value or not. Percentage difference in pricing is about 126.85%. This captures 15% of the bad predictions.
- **Overpaid ride tickets** of a device is a good indicator to identify if a transaction has a good upfront pricing value or not. Percentage difference in pricing is about 110%. This captures 5% of the bad predictions.
- **Fraud score** is missing for almost half the transactions. It does not have a strong correlation with percentage change in upfront price.

Top Opportunities

From analysis, Upfront Pricing Predictions are bad on long distance / duration rides, cheaper devices, in Non EU locations, devices with Low GPS confidence, on Weekends, on overpaid ride tickets.
Ideally, one would like to improve upfront pricing by utilizing multiple informative factors such as Day of Transaction, EU indicator, Device manufacturer, Distance of ride, GPS confidence.

1. The top most feature seems to be whether a ride is a EU ride or not, as it captures a significantly high percentage (28.3%) of the rides while also highlighting significantly high change in pricing and metered value. (91.5%). It is also a simplistic addition to the ML model making the prediction.
2. The second best feature is to see if a ride is on the weekend or not. Analysis shows that weekend rides are clearly riskier in terms of upfront pricing as the percentage change between metered price and upfront is significantly high.