# EXPLAIN VS PREDICT



#### **EXPLAIN**

- Does education increase income?
- How much does advertising affect sales?
- Your model needs to be interpretable.
- Simpler is better.
- You want meaningful coefficients and valid inference.

#### PREDICT

- Can we predict tomorrow's sales?
- Will this customer churn?

- You don't care why you just want to get the number right.
- You'll use cross-validation, tune models, and might even prefer more complex ones.

#### **EXPLAIN**

- Does education increase income?
- How much does advertising affect sales?
- You worry about assumptions: linearity, normality, multicollinearity.

#### **PREDICT**

- Can we predict tomorrow's sales?
- Will this customer churn?

You focus on out-of-sample performance — RMSE



## Explaining is about insight.

### Predicting is about foresight.



#### Ask yourself: What's your goal?

The answer should shape everything from your model choice to how you evaluate it.



## TECH3



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