Quick-Reference Card: Applied Data Science and ML for Business Users

FAST-05 · 7formations · Instructor: Wadood Chaudhary

Prediction map

Predicts · inputs (features) · learned from (label) · output · **who acts** · cost if wrongly yes · cost if wrongly no · data notes

Four boxes and three metrics

	Actually yes	Actually no
Flagged	TP	FP
Not flagged	FN	TN

Accuracy (TP+TN)/all · **Precision** TP/flagged ("when it flags, how often right?") · **Recall** TP/actual yes ("how many real cases caught?")

Rare events: flag-nothing can be 98% accurate. **Choose thresholds by cost and capacity.**

Data-quality hunt

Duplicates · blanks (by group!) · inconsistent codes/dates · outliers · skewed sample · proxies (ZIP, insurance) · drift (process changes)

Forecasts

Plan to the **range**. Abs error = |A − F|; MAE = average. Outside range → investigate. **Override** only with new information; log original, new, reason, source, approver, review date.

AI analysis tools

Name table and columns · specific question · "show the formula" · **confirm one finding by hand**.

Vendor questions

Data like ours? · precision/recall at our threshold? · fairness incl. proxies? · drift detection and notice? · customer explanation? · regulatory alignment (e.g., MA DOI Bulletin 2024-10)? · override and off switch?

Monitoring

Owner · measure · trigger · action.

Data rules

No personal information (G.L. c. 93H, 201 CMR 17.00) or PHI in analysis tools unless approved. Strip unneeded columns.