

APPLICATIONS



OF DATA SCIENCE

Topics in Classification

Applications of Data Science - Class 13

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Topics in Classification

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Life isn't perfect

Let's tackle just a few issues:

- Imbalanced Classes
- Multiple Classes
- Not enough labelled data and data labeling is expensive

Imbalanced Classes

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Typical examples of Imbalanced Classes scenarios

- Rare diseases: [this](#) dataset contains genetic data for 1,000 HIV patients, 206 out of 1,000 patients improved after 16 weeks of therapy
- Conversion/Sell/CTR rates: [this](#) dataset contains 10 days of Click-Through-Rate data for Avazu mobile ads, ~6.8M clicked out of ~40.4M
- Fraud detection: [this](#) dataset contains credit card transactions for a major European CC, 492 frauds out of 284,807 transactions