Detecting Misstatements in Financial Statements

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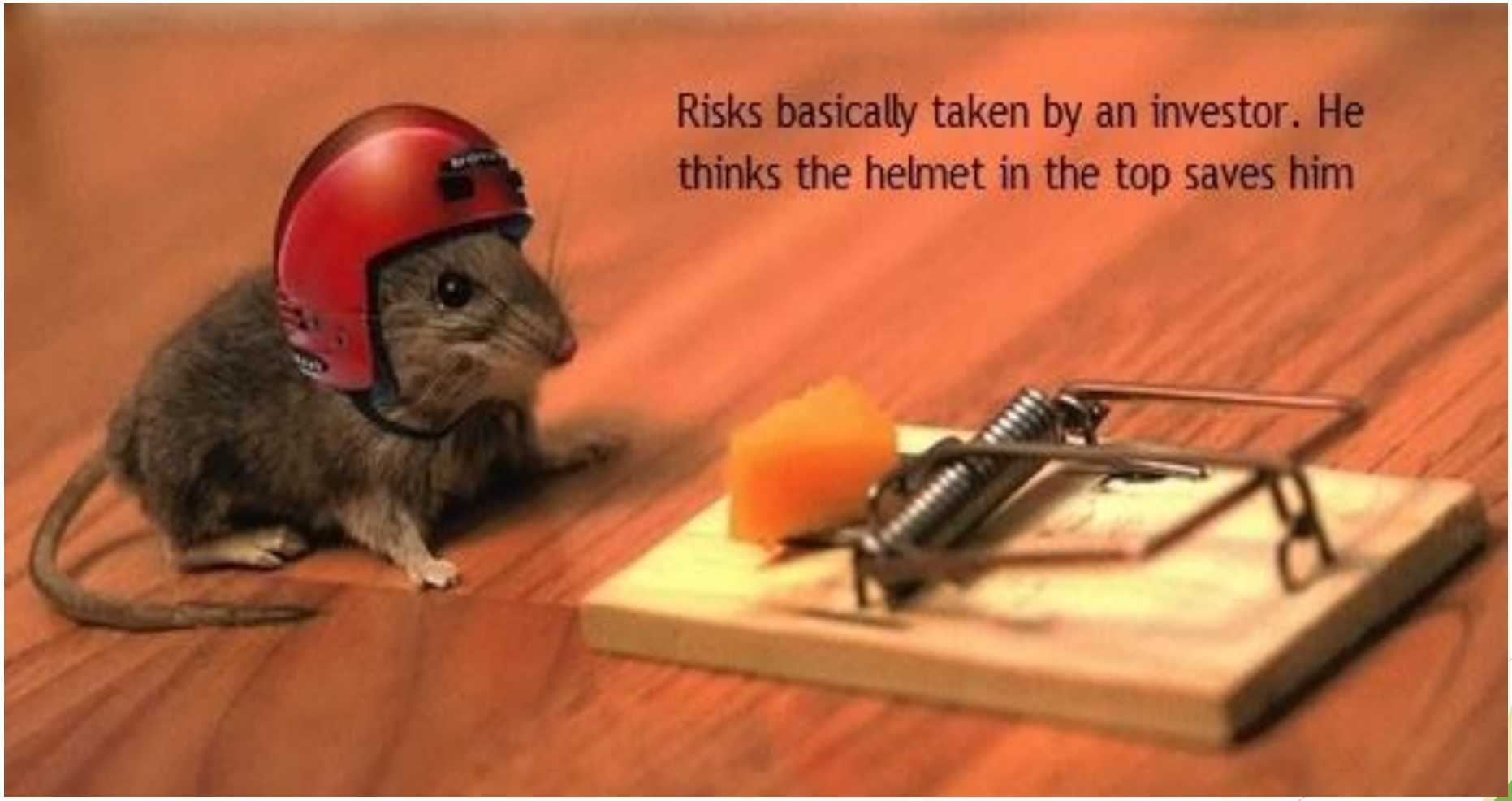
Motivation : Investment Risk



Motivation: Why is it an important project?

- Help society invest with confidence
- Corporations will be more responsible
- Enable auditors to focus on companies that are more likely to make a misstatement.
- Investors will be able take into account the misstatement risk in their decisions.

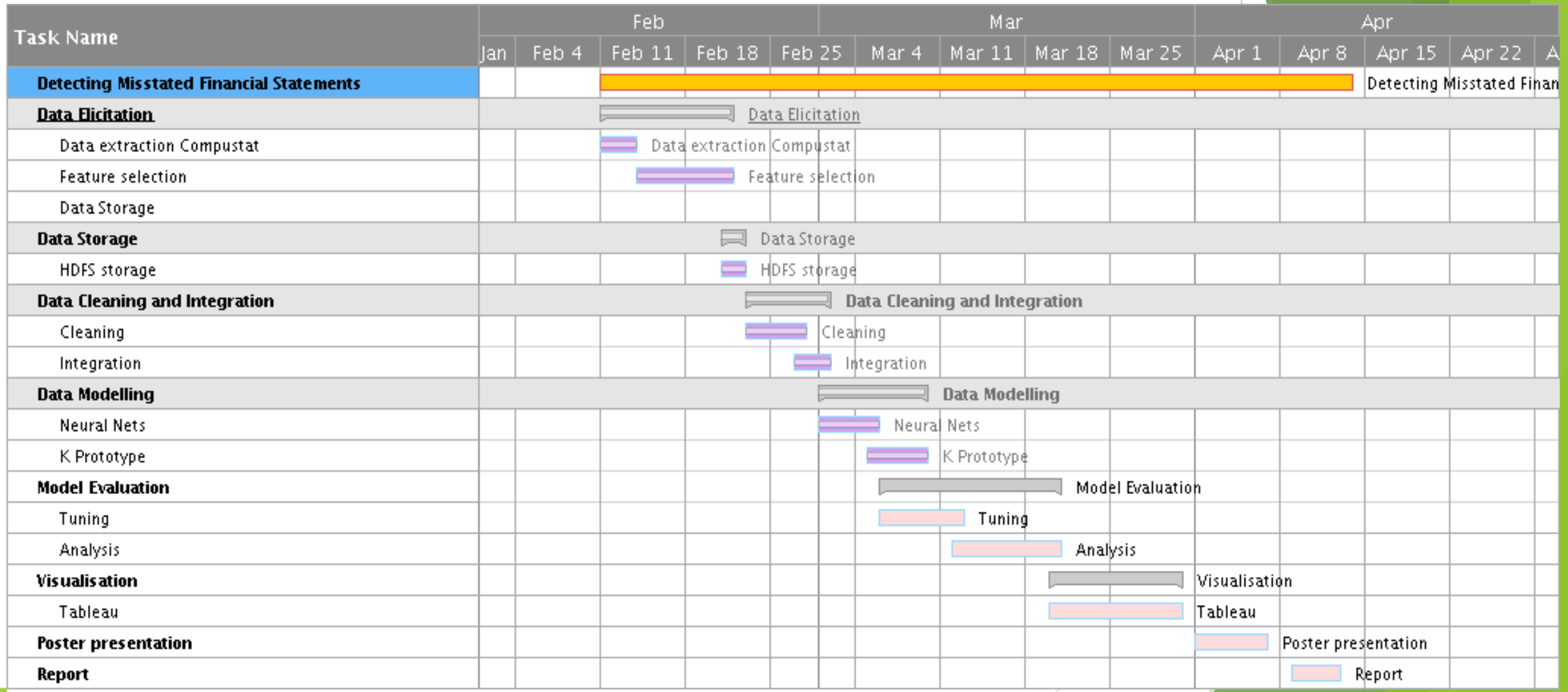
Motivation: Why is it challenging?

- Very large data set
- Only have the restated financial data available, all misstated data has already been corrected.
- Very few examples of actual misstated financial statements.
- The majority of features contain mostly null values.
- Learning accounting domain knowledge.

Progress Report: What have you done so far?

- Consulted with subject matter expert.
- Underwent accounting sessions with Prof. Kim Trottier
- Feature selection through subject matter expert consultation.
- Analyzed the datasets
- Data integration

Progress Report: Is it on schedule?



Future work: What do you plan to do next?

- Exploratory Data Analysis
- Finding correlation between percentage difference of analysts prediction and actual Earnings per share after earnings announcement date.
- Group the organizations based on industry segments.
- Implement neural networks, random forests and Support Vector Machine.
- K prototypes Clustering for anomaly detection
- Look for more interesting insights using clustering.

Future work: What is the detailed schedule of the remaining part of the project?

- Next week: Do more EDA, project planning
- 2 weeks: Train the model to predict misstatements
- 3 weeks: Improve on model; try unsupervised clustering
- 4 weeks:Poster and final presentation.