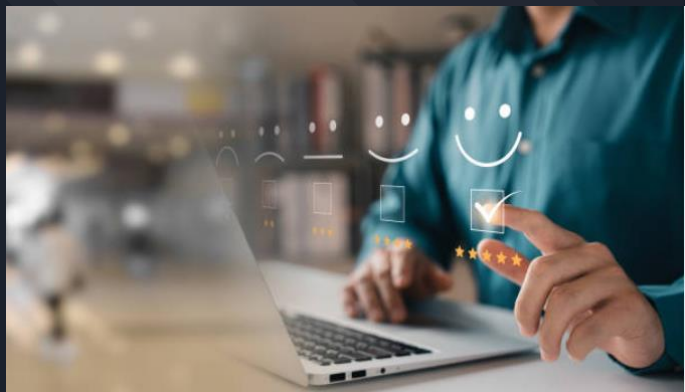


Predicting employee attrition for IBM



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Data Scientist



Situation & Project Goal

Problem

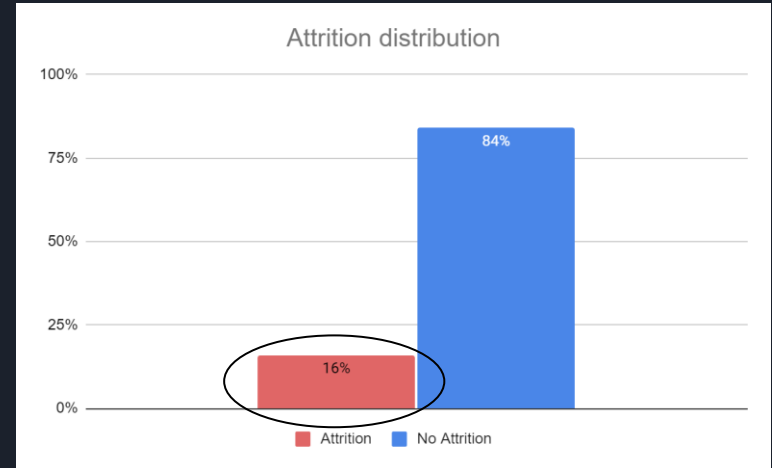
- Tough recruiting market
- High employee turnover
- Resignations come at surprise

Solution

- Identify employees who might want to leave the company
- Find out factors that drive resignations
- Enable strategic HR interventions

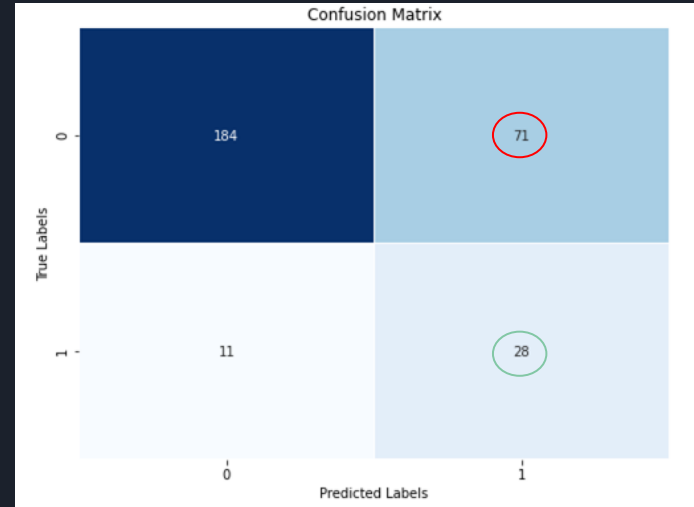
The data

- Internal data with > 1400 employees
- Attrition **yes** vs. **no**
- Information about
 - Demographics
 - Position
 - History in company
 - Satisfaction scores
 - Performance
 - Educational background

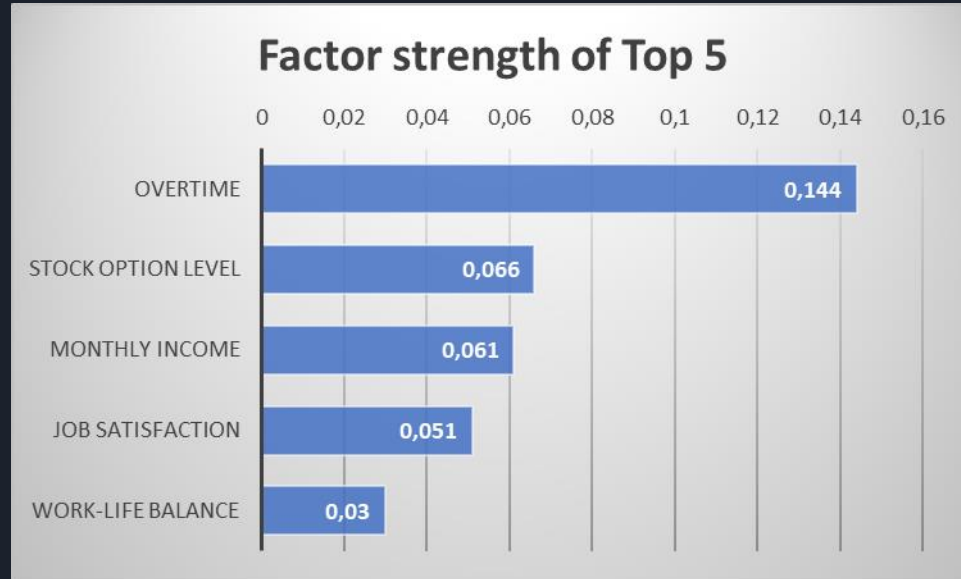


Method & Evaluation

- Classification task (attrition yes vs. no)
- Random Forest Classifier
- Focus on predicting the **actual leavers** → Recall
- Accept **false positives**
- Final model has a **recall of 0.71**



Reasons for attrition & recommendation



What you can do:

- Reduce overtime
- Offer employees stocks
- Increase monthly income
- Work on attractiveness of jobs
- Consider employee's work-life balance

Limitations & next steps

- Model identifies too many non-leavers
- Gather more data
- Design review process
- Review HR policies





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