

# Smart HR

Yuan Wang  
Insight Data Science

Demo:

<https://smart-hr-app.herokuapp.com/>

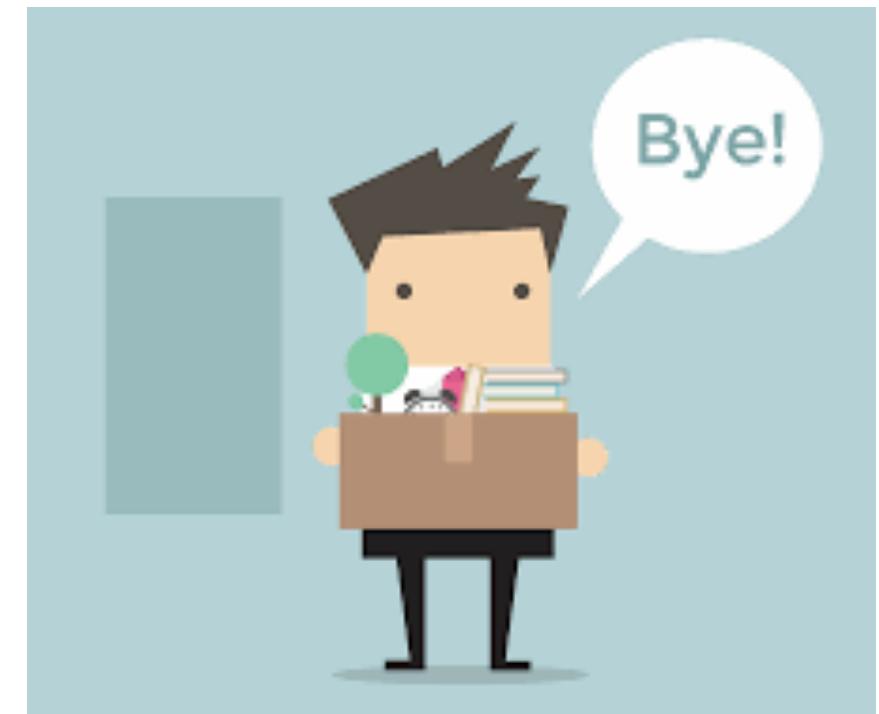
# Motivation: Hiring is EXPENSIVE!

Employee attrition:

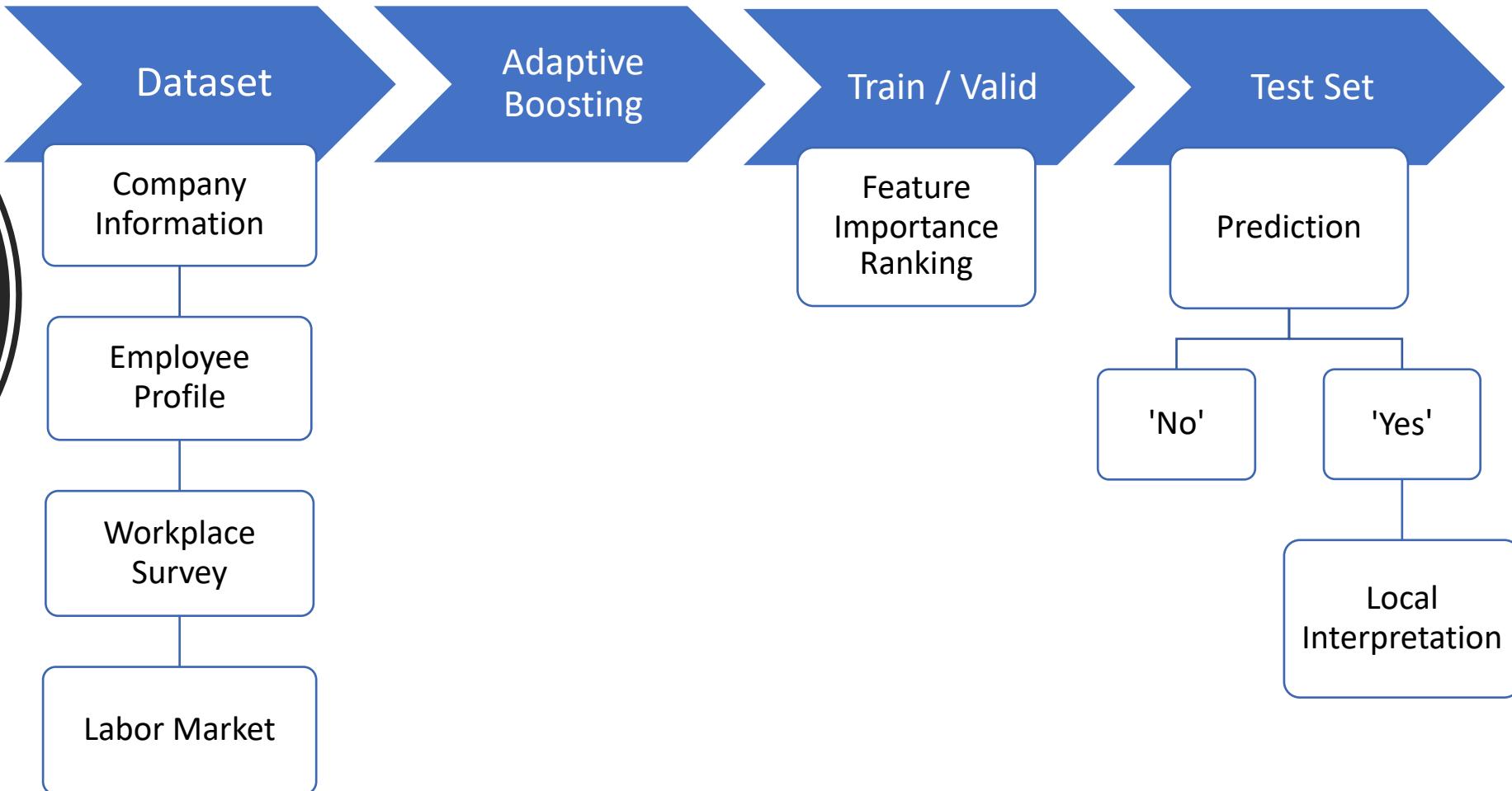
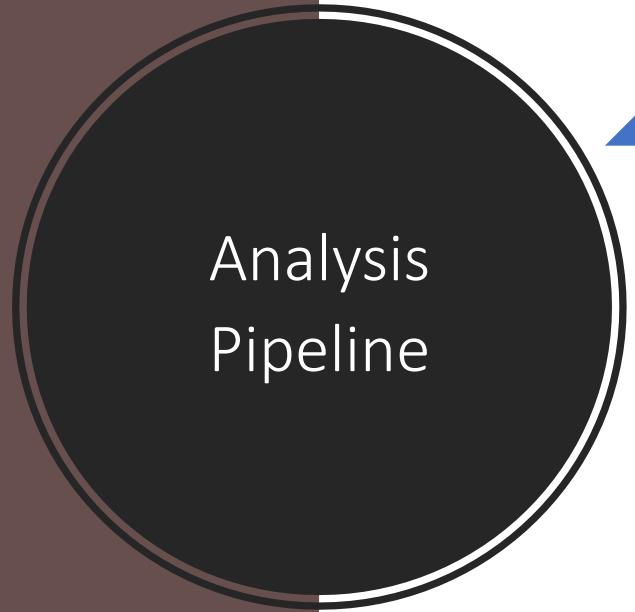
- *Lowers productivity*
- *Costs time and \$\$\$*

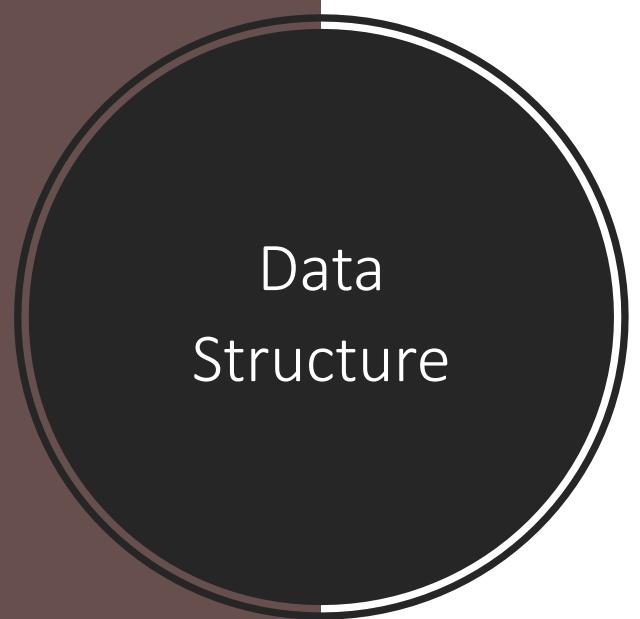
Replacement Cost:

\$ 7,000 — \$ 42,000



# Identify the leading factors to Employee Attrition





34 Features

Firm Internal Data

External Market Data

Company  
Information

Standard  
Hours

Hourly Rate

Training  
Program

.....

Employee  
Profile

Education  
Background

Job Title

Year at  
Company

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Workplace  
Survey

Environment  
Satisfaction

Distance from  
Home

Travel  
Frequency

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Labor Market

Unemployment  
Rate

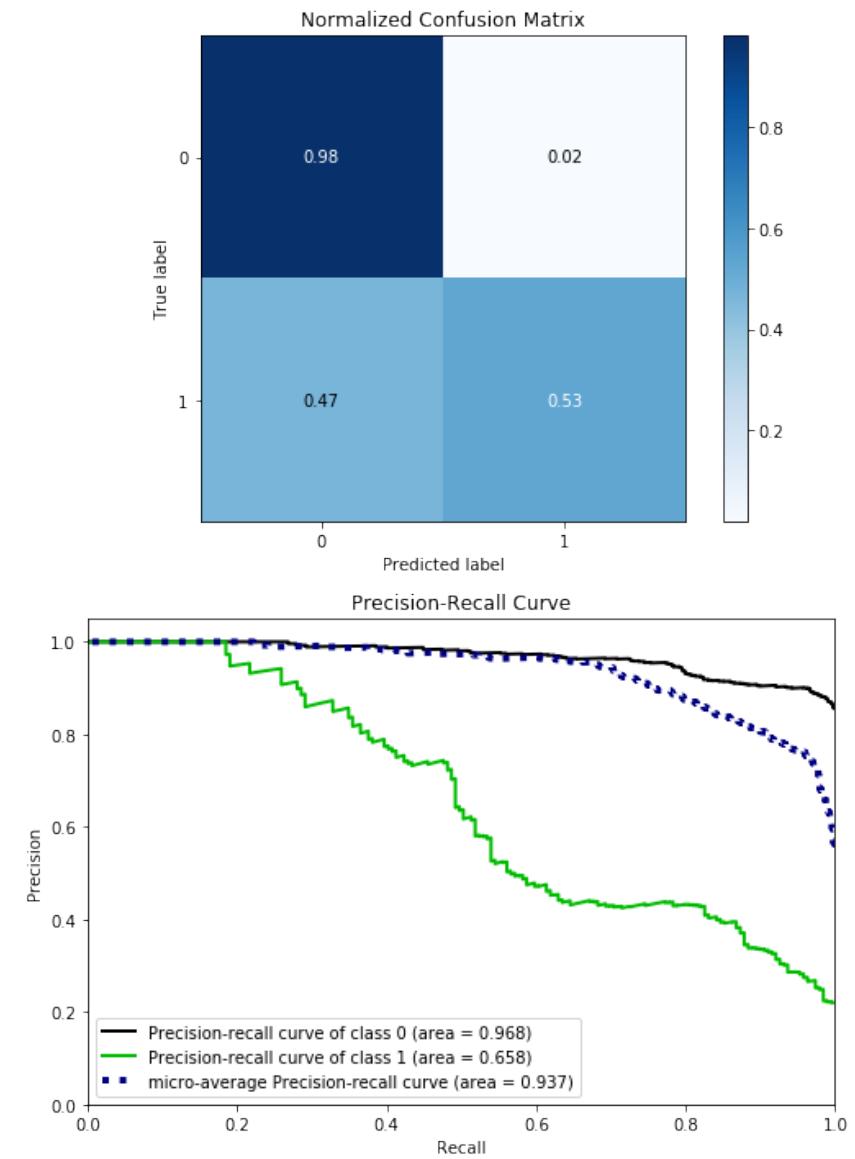
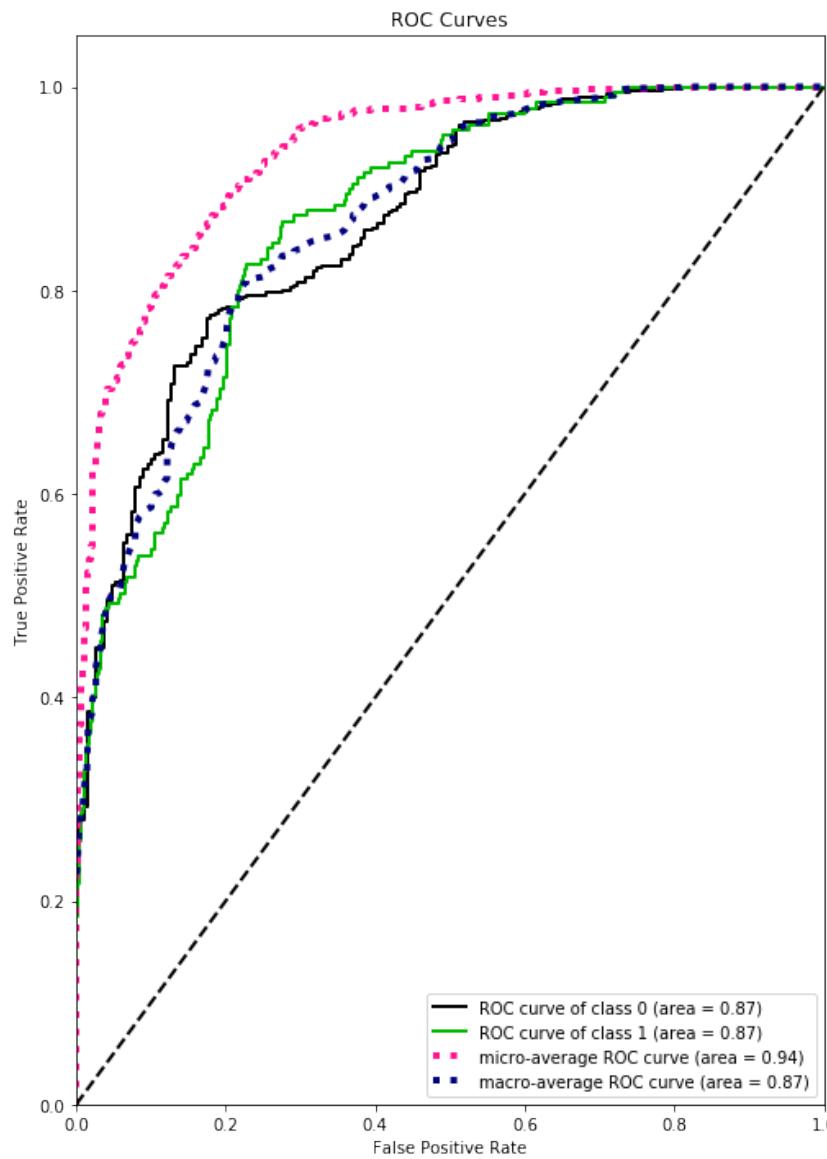
Job Vacancies

Wages High  
Skilled

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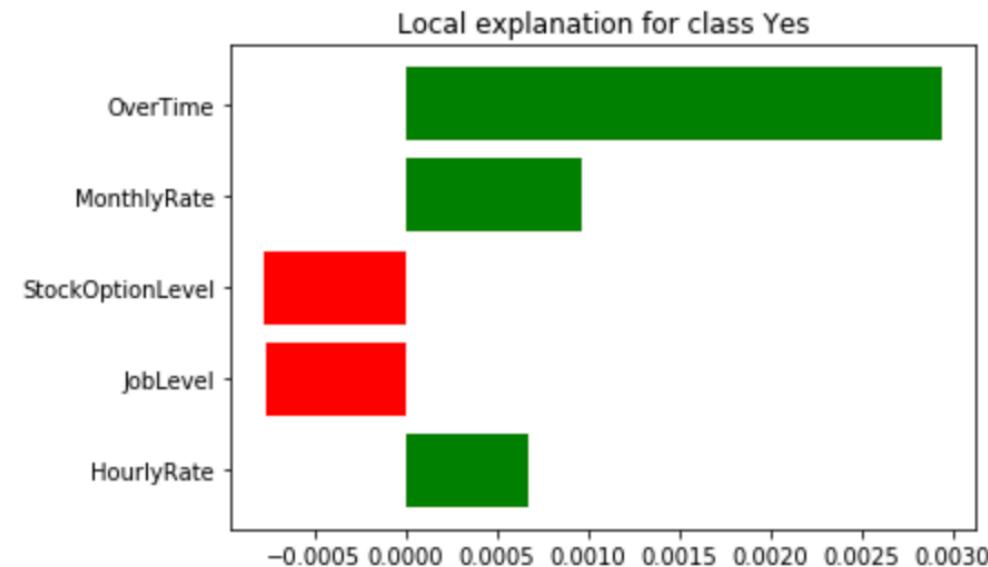
# Classification Model: Adaptive Boosting

Model  
Performance



# Which employees are the most at risk for resigning?

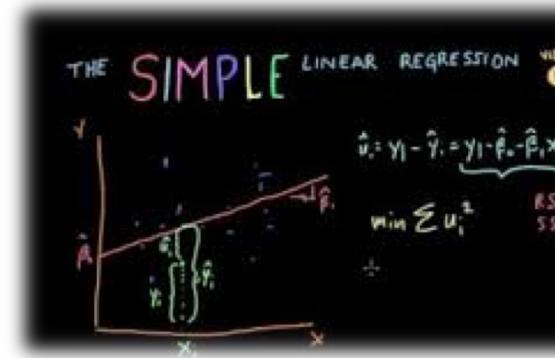
True	Predicted	Prob_0	Prob_1
44	1	0.346	0.654
125	1	0.364	0.636
61	1	0.384	0.616
49	1	0.394	0.606
295	0	0.554	0.446



[smart-hr-app.herokuapp.com/](http://smart-hr-app.herokuapp.com/)

# *Yuan Wang*

Ph.D. in Applied Econometrics



M.S. in Quantitative Economics

