Modeling Annual Income

Based on skills

Objective

Improve estimating income for new talent based on their location and skills

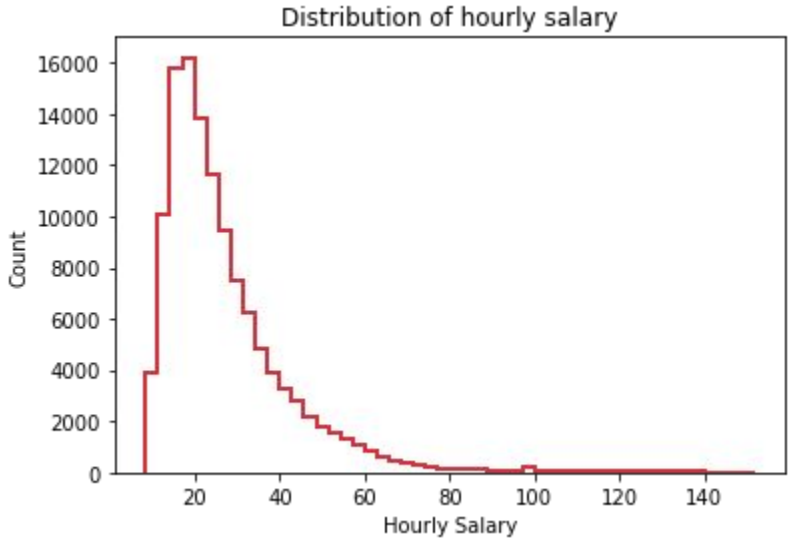
Employee learns a new skill: which skill(s) will earn them the greatest increase in income?

Data

Bureau of Labor Statistics: Salaries

O*net: Skills (importance scale 1-5)

Target feature - Income



	Annual (dollars)	Hourly (dollars)
Mean	57,448	27.34
Min	17,300	8.32
Max	315,830	151.84

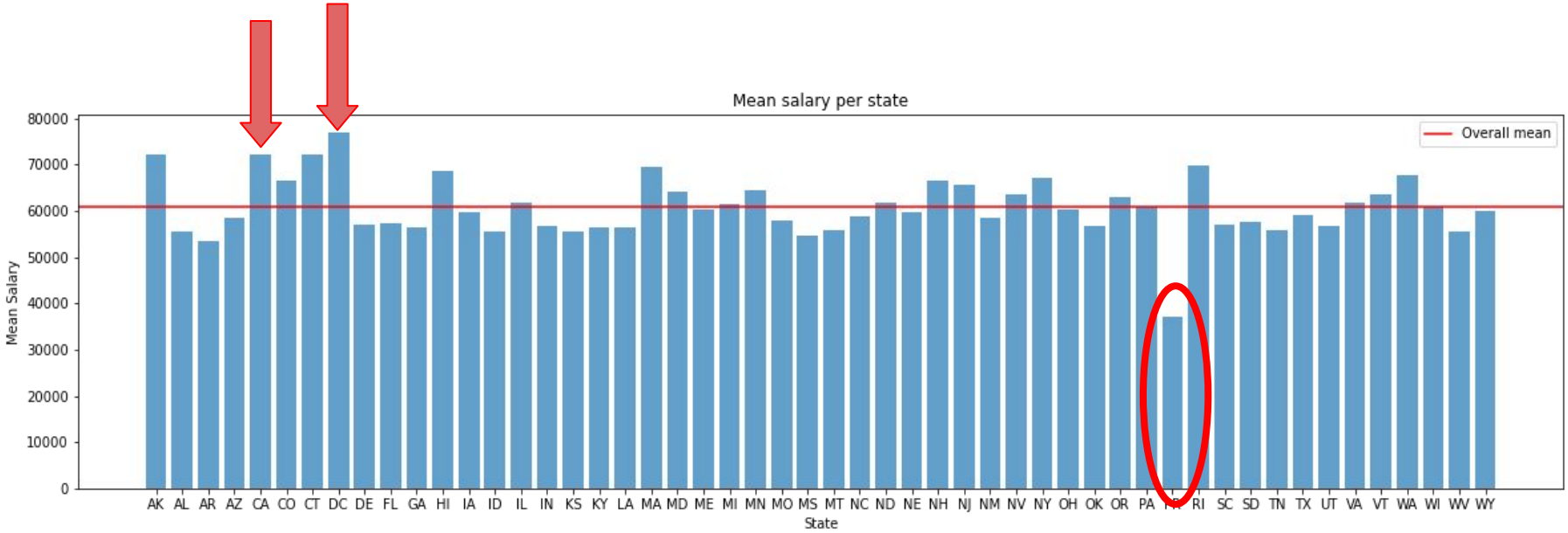
Features

31 skills

52 states (includes Puerto Rico and DC)

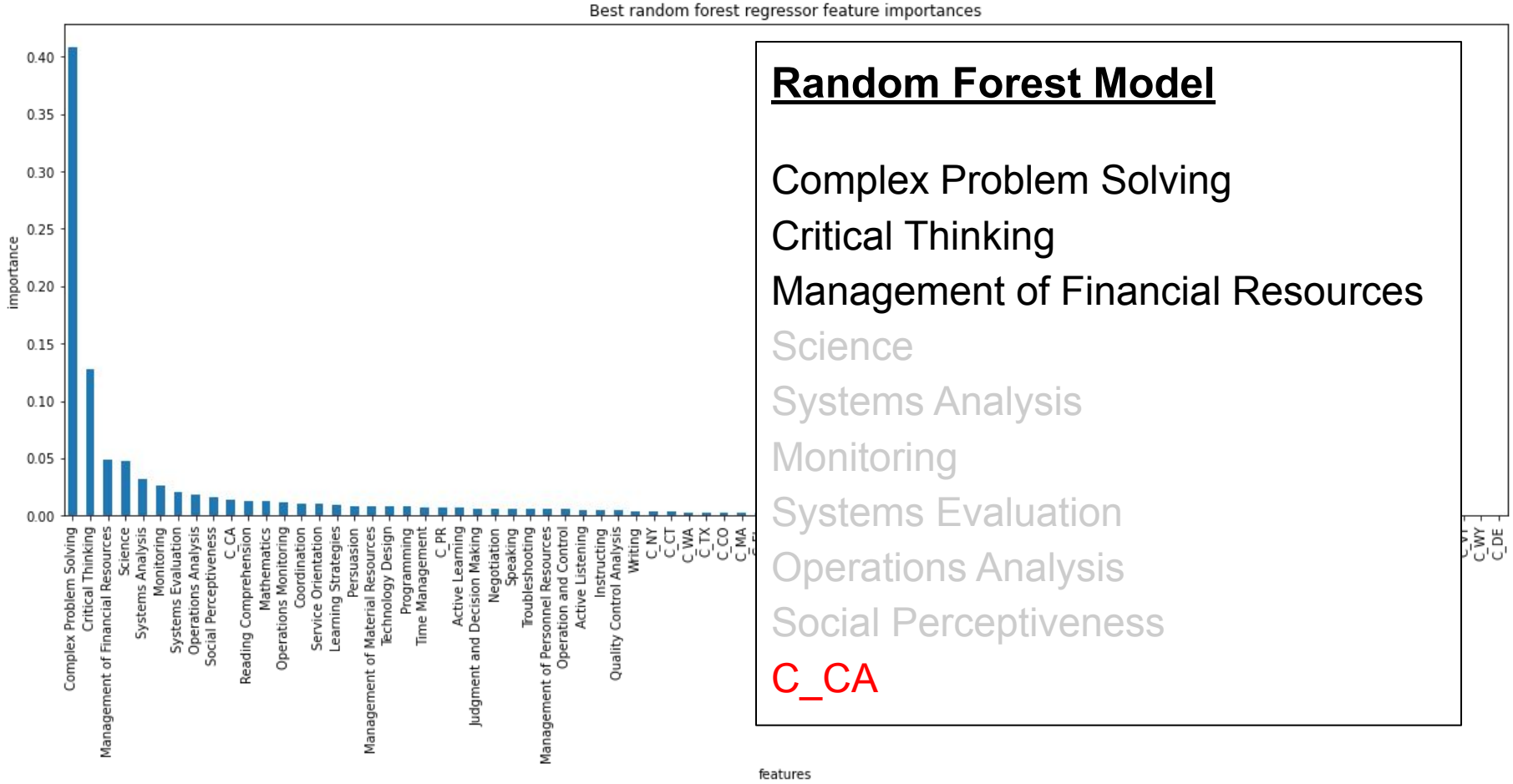
83 total features

Average State Income



Model Performance

	OLS	Ridge	SVR	Random Forest
R-squared	0.61	0.61	0.59	0.89
MAE test	$14,251	$14,250	$13,671	$6,995



Random Forest Model

Complex Problem Solving

Critical Thinking

Management of Financial Resources

Science

Systems Analysis

Monitoring

Systems Evaluation

Operations Analysis

Social Perceptiveness

C_CA