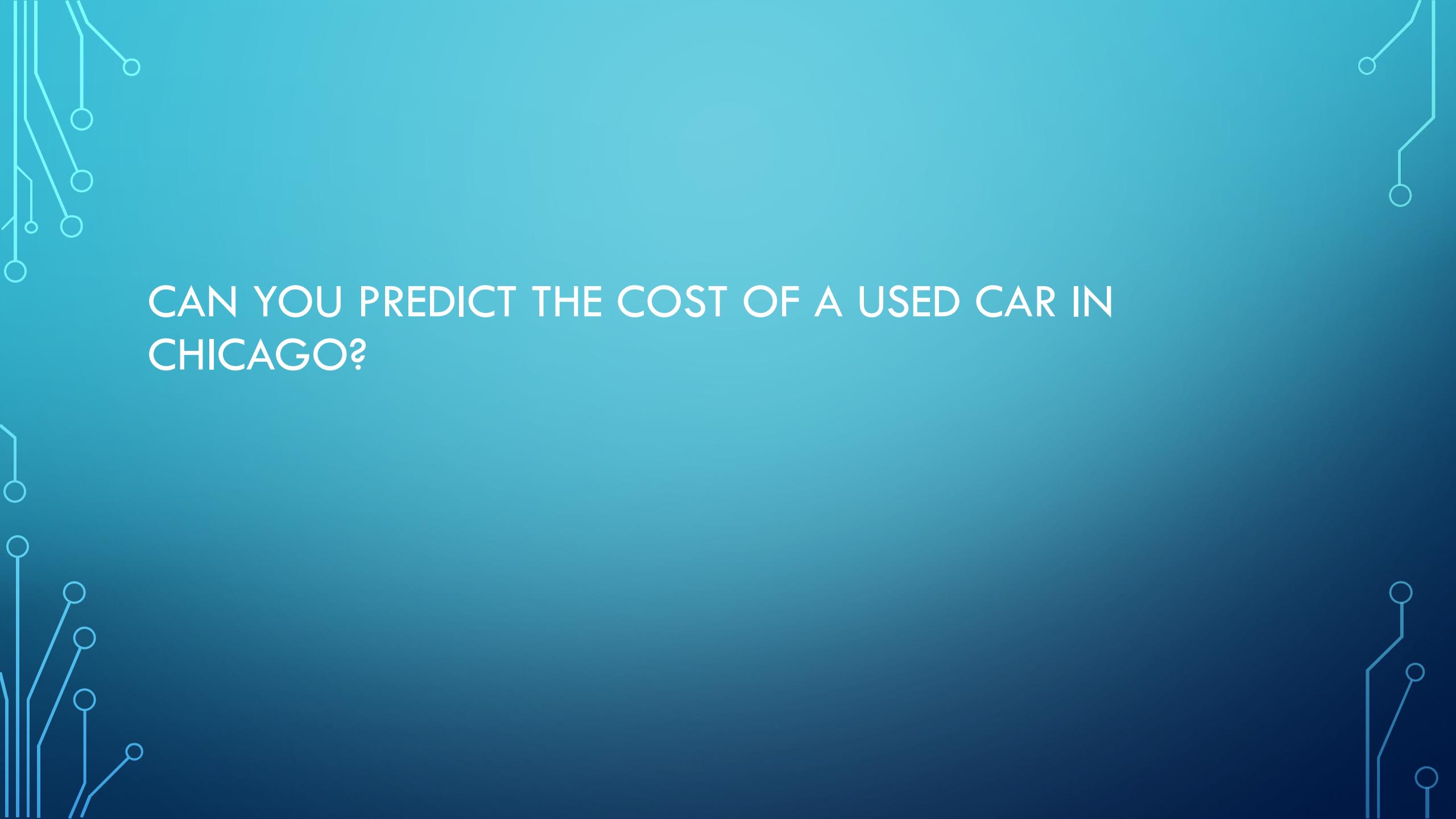


PREDICTING USED CAR PRICES

HARI DEVANATHAN





CAN YOU PREDICT THE COST OF A USED CAR IN CHICAGO?

Cars for Sale > Chicago, IL

Cars for Sale in Chicago, IL 60611

Sort by: Relevance

Location

Radius

50 Miles

ZIP code

60611

Delivery to Your Door

 Include vehicles that can be delivered to you

Price

Condition

Year

Mileage

Make

Body Style

Drive Type

Transmission

Engine

Fuel Type

Fuel Economy

Exterior Color

1-100 of 1,000+ Results

Featured Dealer



Used 2001 Chevrolet Camaro Coupe

\$4,500

Sherman Dodge Chrysler Jeep

(224) 470-1253

[Get Directions](#) | [Contact Dealer](#)

Open Memorial Day 9-5pm



Similar vehicles in stock

[View vehicles](#)

Your Search Results



Certified 2015 INFINITI QX80 4WD



\$36,985

40,936 miles

Gray • 14 City / 20 Highway • 4 wheel drive - rear • 8-Cylinder

Berman Star Nissan (11.1 mi. away)

(224) 470-3140 | [Confirm Availability](#)

Used 2016 Honda Civic EX-T Coupe



\$16,499

22,450 miles

Black • 31 City / 41 Highway • 2 wheel drive - front • 4-Cylinder Turbo

1000 used car
postings

Web Scraping

- Beautiful Soup
- Selenium
- Thread Pooling

FEATURES FOR USED CAR COST PREDICTION MODEL

Condition	Exterior	Engine	Kind	Drivetrain	Added Features
Miles	Make	# of Cylinders	Luxury	All-wheel	Age x Miles
Age	Color	MPG City	Foreign	Front-wheel	Certified x Luxury
Certified		MPG Highway		Rear-wheel	
				Four-wheel	

CERTIFIED X LUXURY

- Bigger circle = Higher cost
- More color = Higher Certified x Luxury

Certified x Luxury Cost Visualization



LINEAR REGRESSION MODEL

- $R^2: 0.87$
- RMSE: \$3,465.88

CONSISTENT FINDINGS FOR IMPACTFUL FEATURES



PORSCHE



Mercedes-Benz

- Higher Number of Engine Cylinders, higher cost
- Higher Miles x Age, lower cost

INTERESTING FINDINGS FOR IMPACTFUL FEATURES



Cadillac

- Higher MPG Highway lowers the cost
 - Found in most affordable cars



INFINTI.®



**THE LINCOLN
MOTOR COMPANY**

- Higher Certified x Luxury, higher the cost
 - Four-wheel drive terrains have a higher cost
 - Chicago snow

CONCLUSION



Year	2015
Make	Lexus
Color	Burgundy
Mileage	55,000
Engine	V6
Drive Terrain	All-wheel
MPG Highway	26

