

A man and a woman are crouching on a paved surface, inspecting the front of a silver car. The man, on the left, is wearing a dark jacket and jeans, and is pointing towards the car's front end. The woman, on the right, is wearing a grey sweater and jeans, and is also pointing towards the car. The car has visible damage to its front end, including a crumpled hood and a broken headlight. The background is a blurred outdoor setting with trees and a fence. The entire image has a blue tint.

Using Predictive Modeling to Combat Insurance Fraud

John Bruemmer

Bryan Keating

Presenters

John Bruemmer

Presentation and Github Lead

Email: Johnnybruemmer@gmail.com



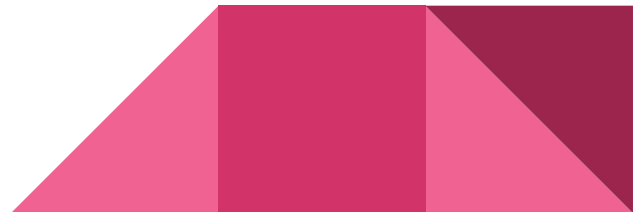
Bryan Keating

Technical Lead

Email: BryanKeating7@gmail.com



// FLATIRON
SCHOOL



Agenda

Business Problem



Model Explanation

Bottom Line



Next Steps

Data Overview



Questions

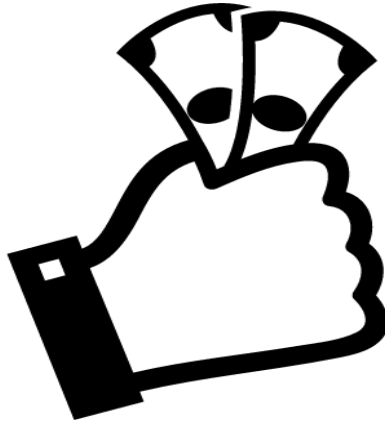
Business Problem

Stakeholder



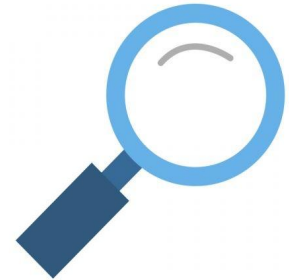
Problem

80 Billion Dollars of
Fraudulent Claims



Goal

Build a model that can
predict damage.



Bottom Line

Damage Accuracy Improved by
7.2 %





Data

Data Exploration

Crash Reports

**481,000 Accidents from
2016-2021**



Key Predictors

**Speed Limit, Number of
Cars, Cause of Accident**

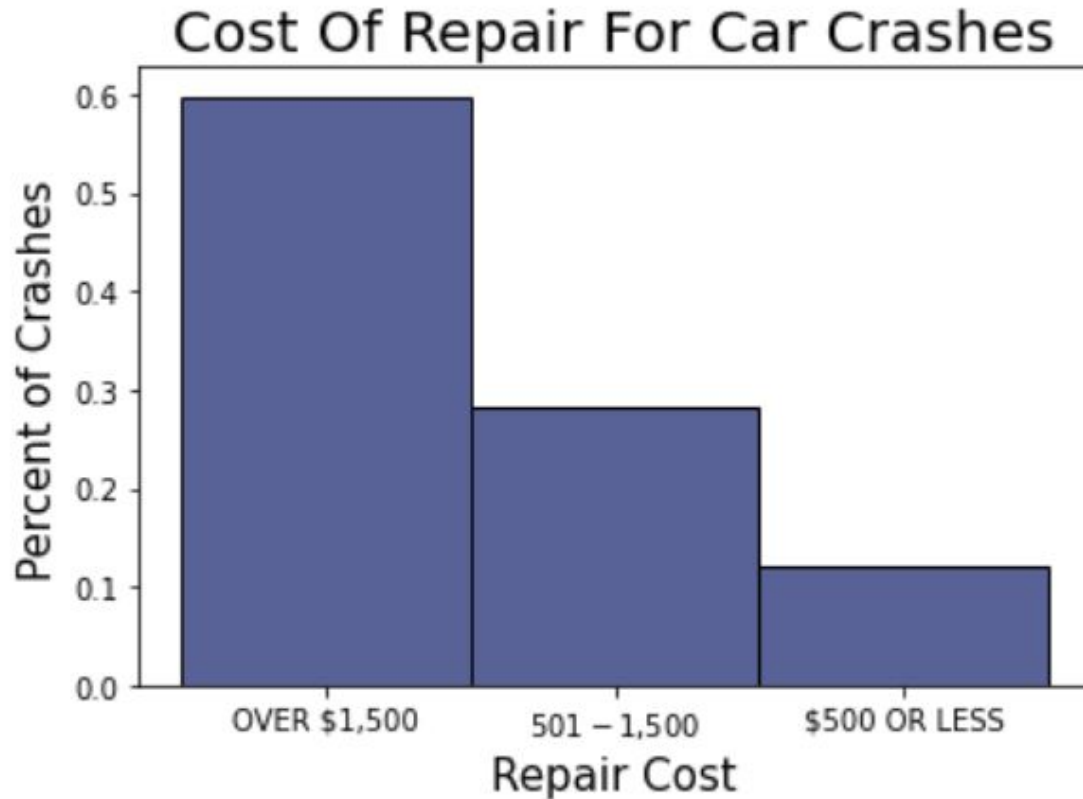


Likelihood of Serious Damage

Damage > \$1,500

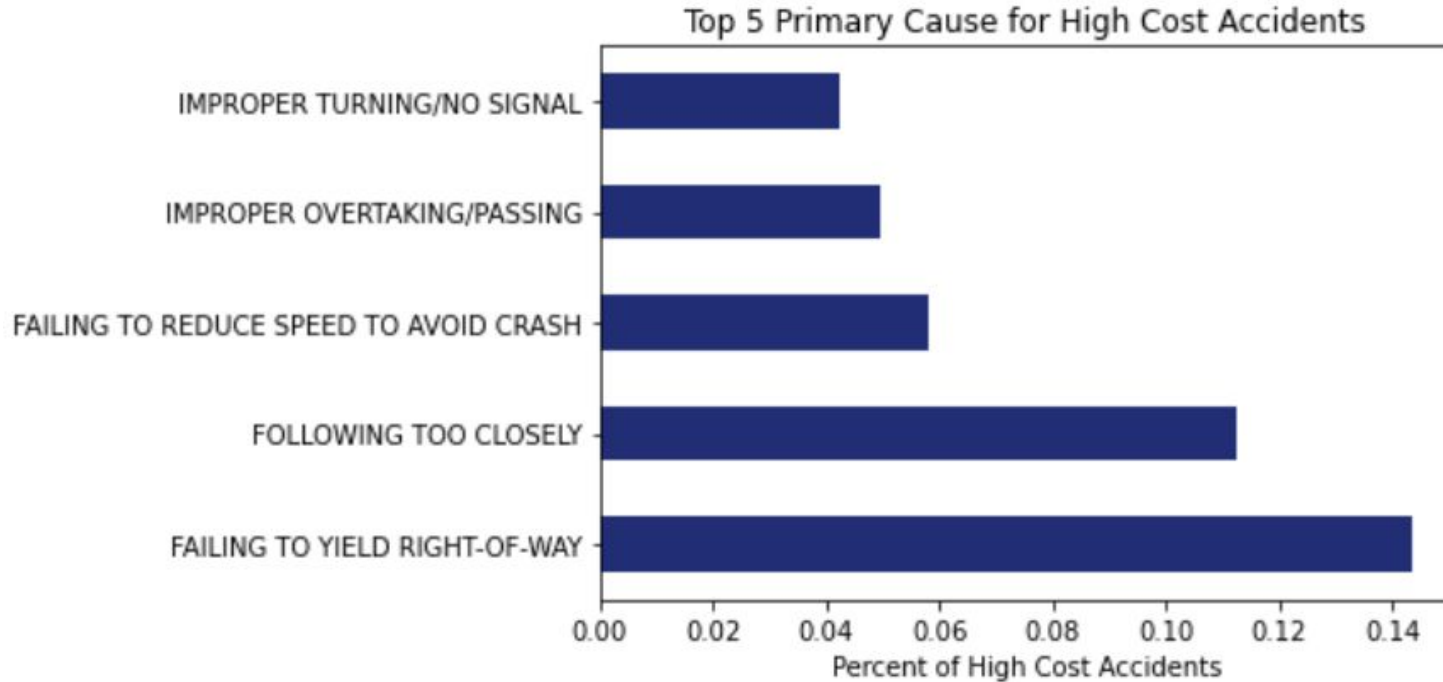


60 % of Accidents Cause Serious Damage



Target Predictor

Causes of High Cost Accidents



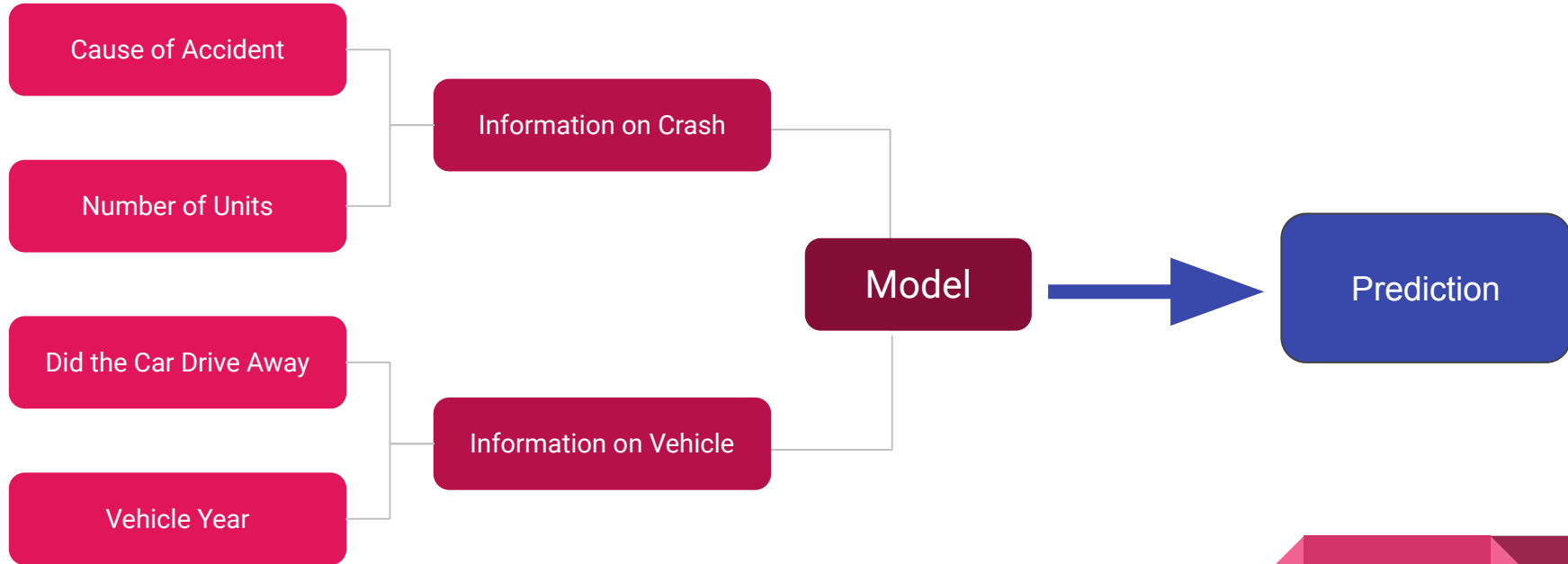
Model

Bryan Keating

Technical Lead



How The Model Works



Business Problem

Bottom Line

Methods

Implementation

Next Steps

Use Independent Data to Combat Fraud

- Use Police Reports to estimate cost
- Large Discrepancies warrant further investigation



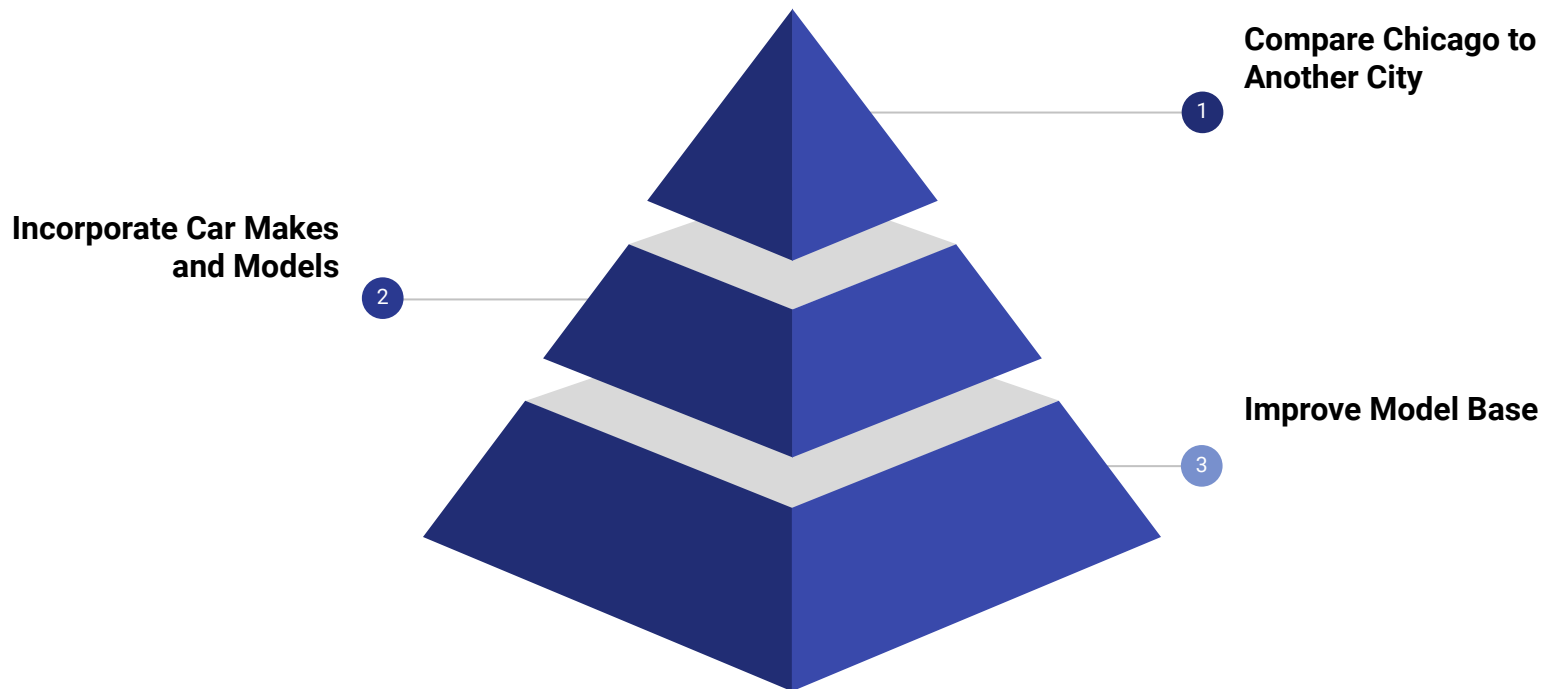
Next Steps

John Bruemmer

Presentation Lead



Next Steps



Business Problem

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Methods

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Questions

Thank You!

John Bruemmer:

Email: Johnnybruemmer@gmail.com

Github: <https://github.com/JBruemmer>

LinkedIn: <https://www.Linkedin.com/in/John-Bruemmer>

Bryan Keating:

Email: BryanKeating7@gmail.com

Github: <https://github.com/BryanKeating>

LinkedIn: <https://www.Linkedin.com/in/Bryan-Keating>



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