PV System Price Prediction
Springboard

Overview

- Problem Statement

- Key beneficiaries

- Reference Data and Analysis

- Key Features and Price Drivers

- ML Model and insights

Problem Statement

-Increase PV system adoption

-What's driving the costs?

-Can we get a better deal?

Who might this help?

Data and Analysis Reference

Berkeley Lab's annual *Tracking the Sun* report

Galen Barbose
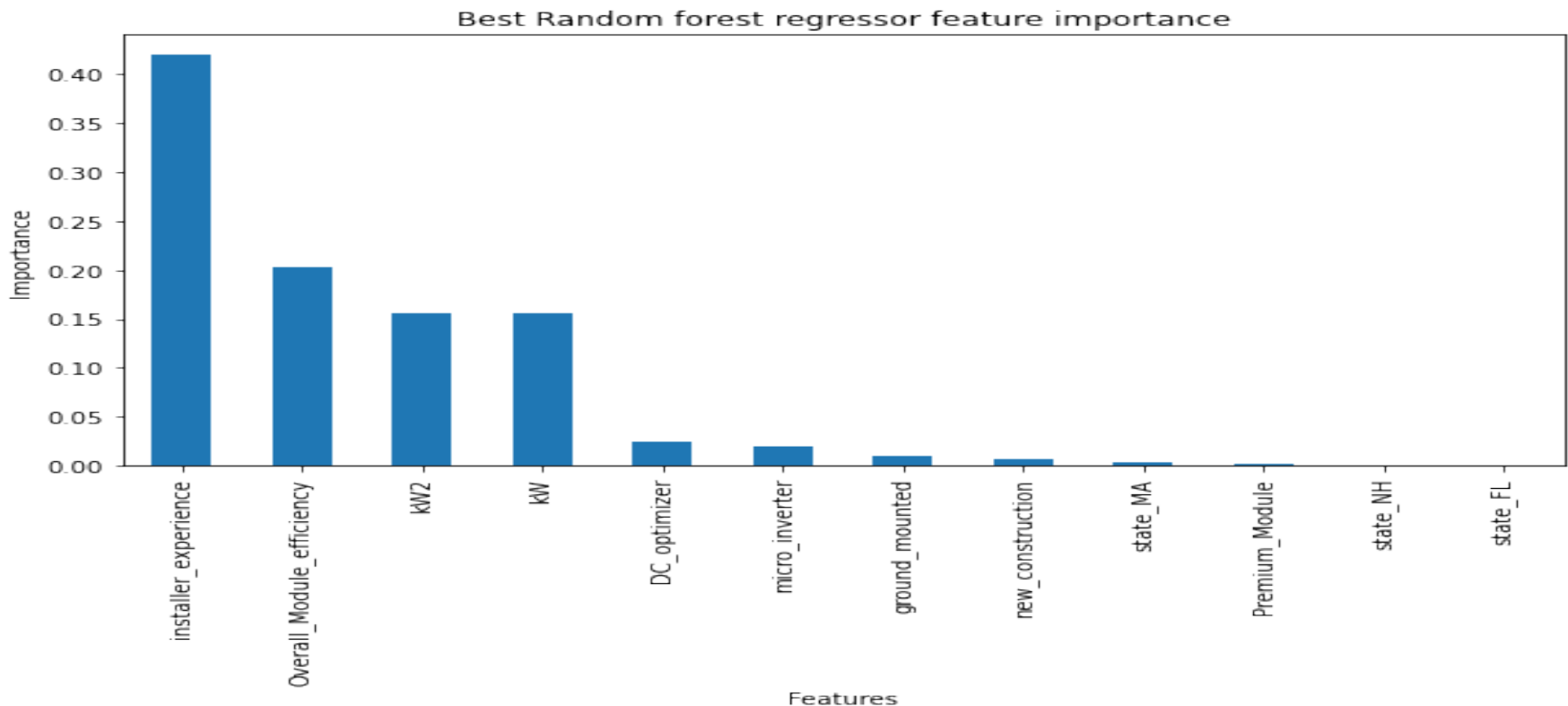Naim Darghouth
Eric O' Shaughnessy

Key Price Drivers

- **Installer Experience**
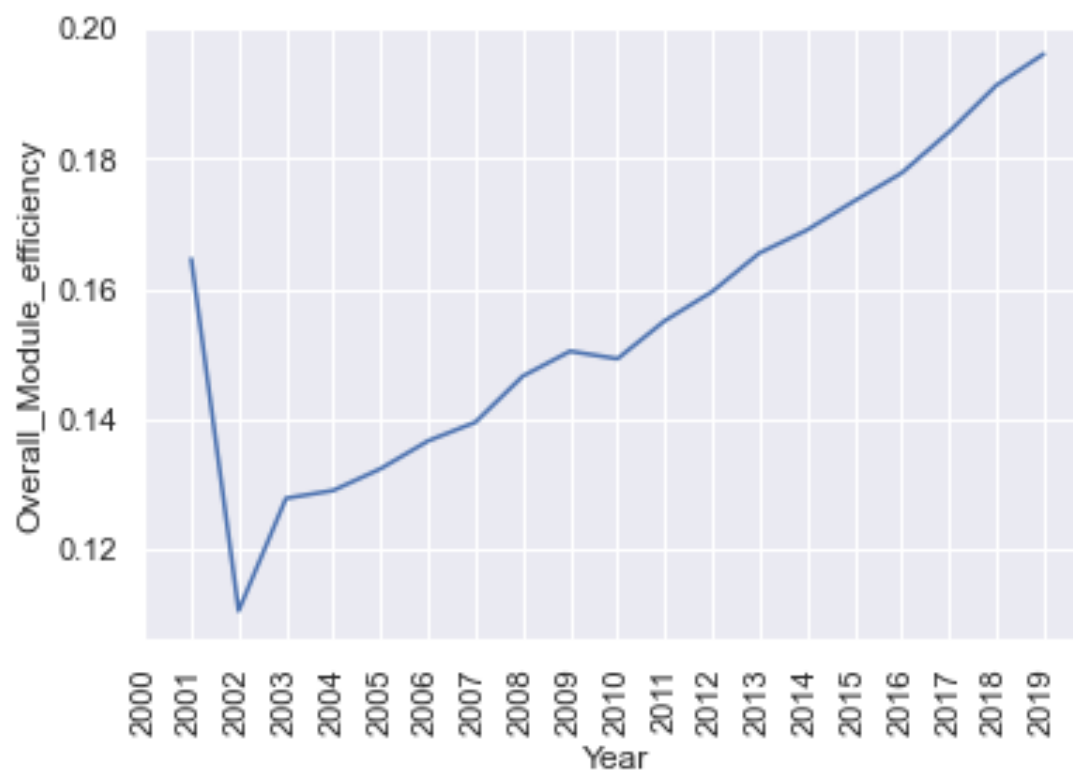- **Module Efficiency**
- **System Size**

Best Random forest regressor feature importance

Installer Experience

$$InstallerExperience = \sum_{Date} InstallerName$$

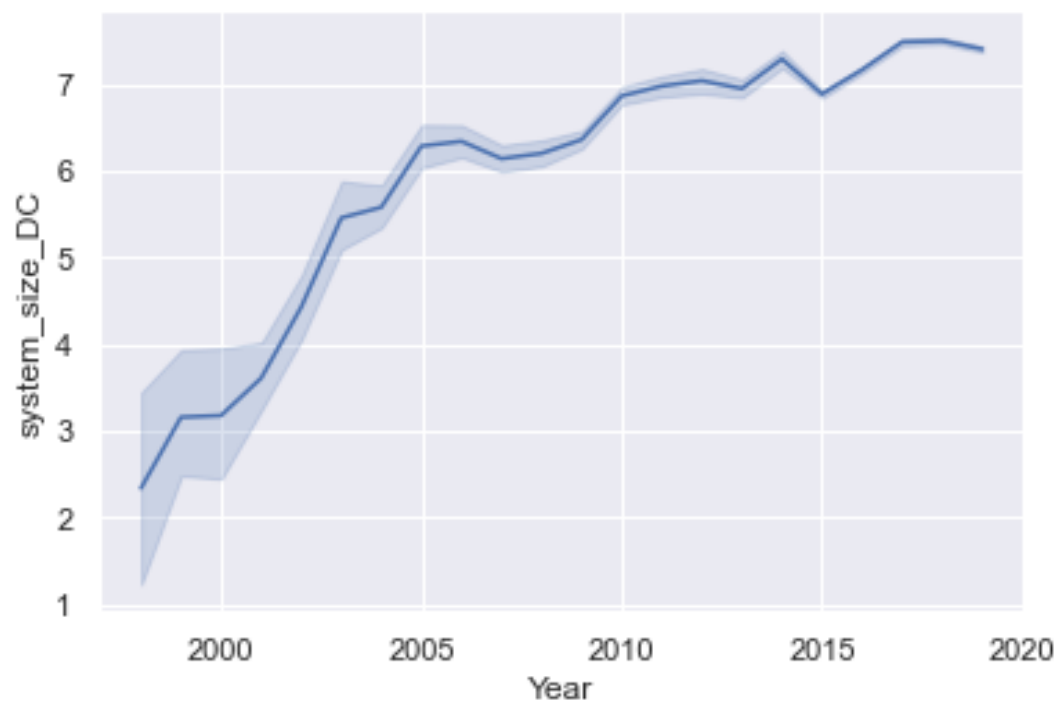- Positive Regression coefficient
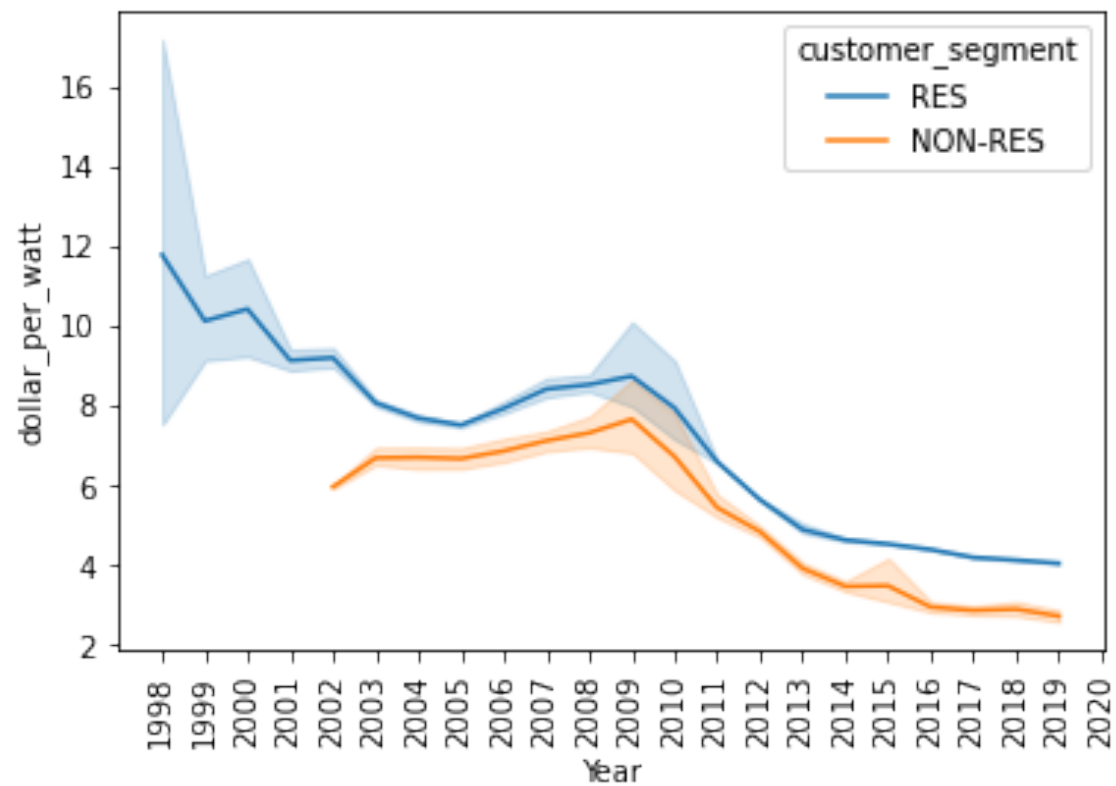-Size and experience
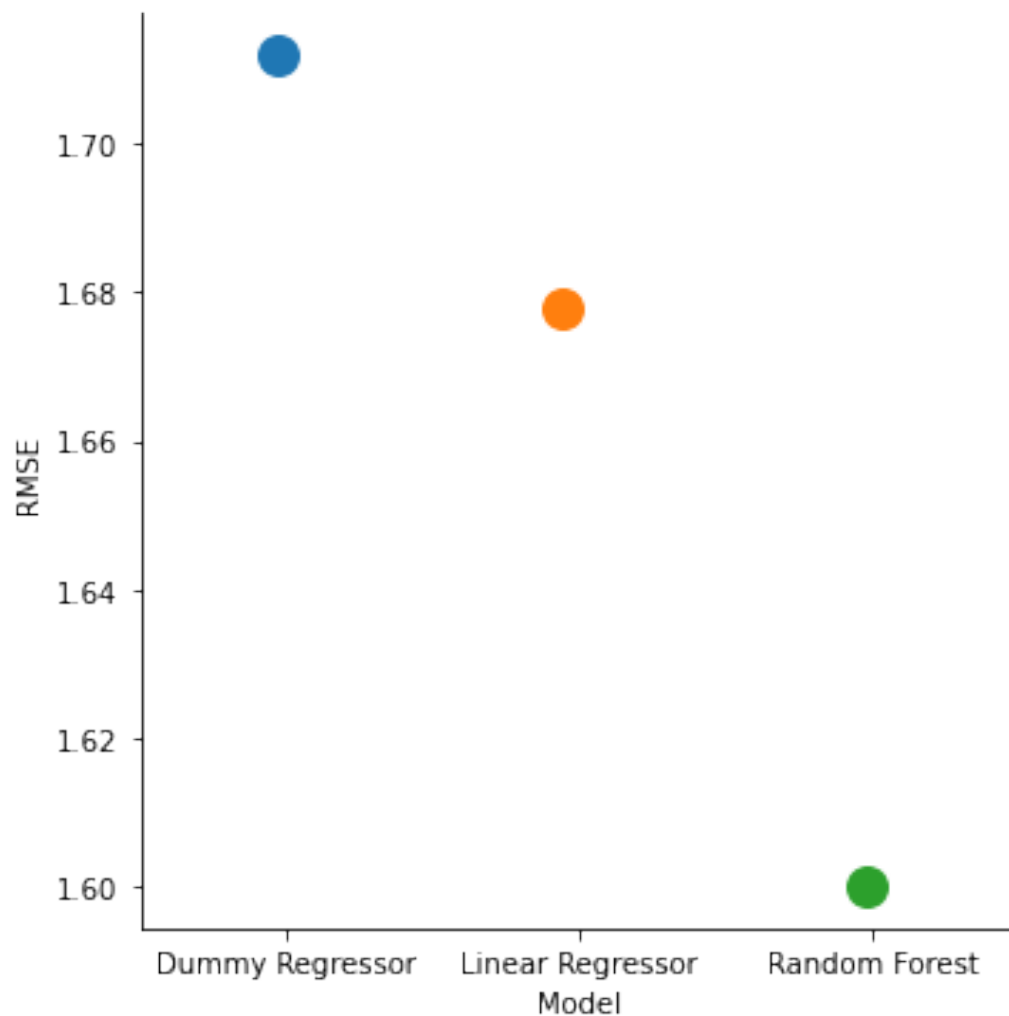-Premium components

Module Efficiency

System Size

System price

Model Selection

- **Dummy Regressor**

- **Linear Regressor**

- **Random Forest Regressor**

Conclusions

- Best Model – Random forest

- Key Metric – RMSE

- Top Features :

  - Installer Experience

  - Module Efficiency

  - System Size

Acknowledgements

- Dr. Guy Maskall-Springboard mentor
- Galen Barbose – Lawrence Berkeley Laboratory
- Naim Darghouth– Lawrence Berkeley Laboratory
- Eric O' Shaughnessy– Lawrence Berkeley Laboratory

THANK YOU!!