LOAN EVALUATION

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THE PROBLEM

How can Investors accurately discern between a potential good or bad lending opportunity in the peer to peer (P2P) market, especially with the lack of borrower information and loan collateralization.

SOLUTION

How might we use ML to identify patterns and predictors to more efficiently predict a loan applicants credit worthiness, overcoming the information asymmetry within P2P loan markets.

IMPACT

- Reduced Credit Risk

- Consumer confidence and trust by elimination of grey metrics
- Operational Efficiency

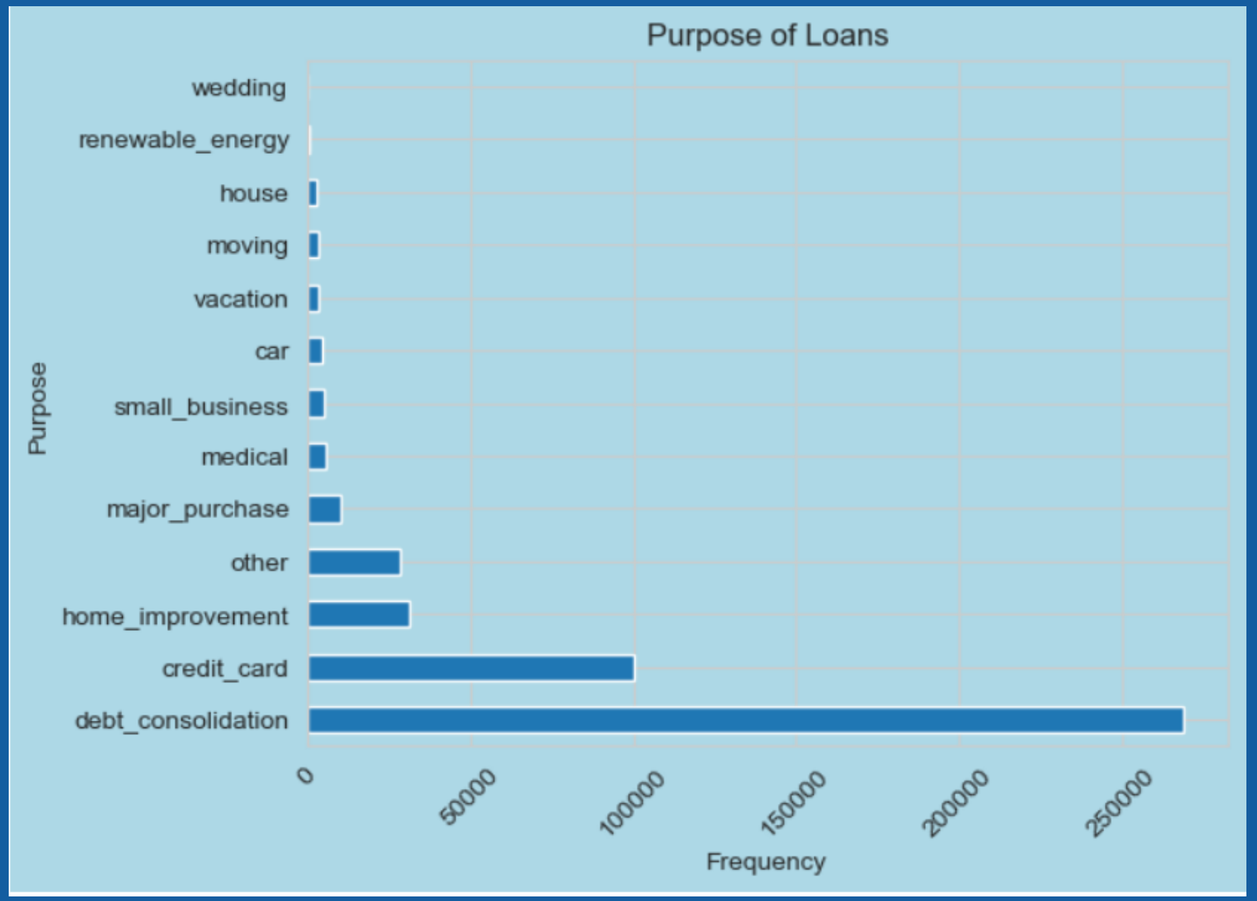
LendingClub

THE DATASET

- Real-World Dataset
- Over 2 million loans with 151 features pertaining to loan and borrower attributes

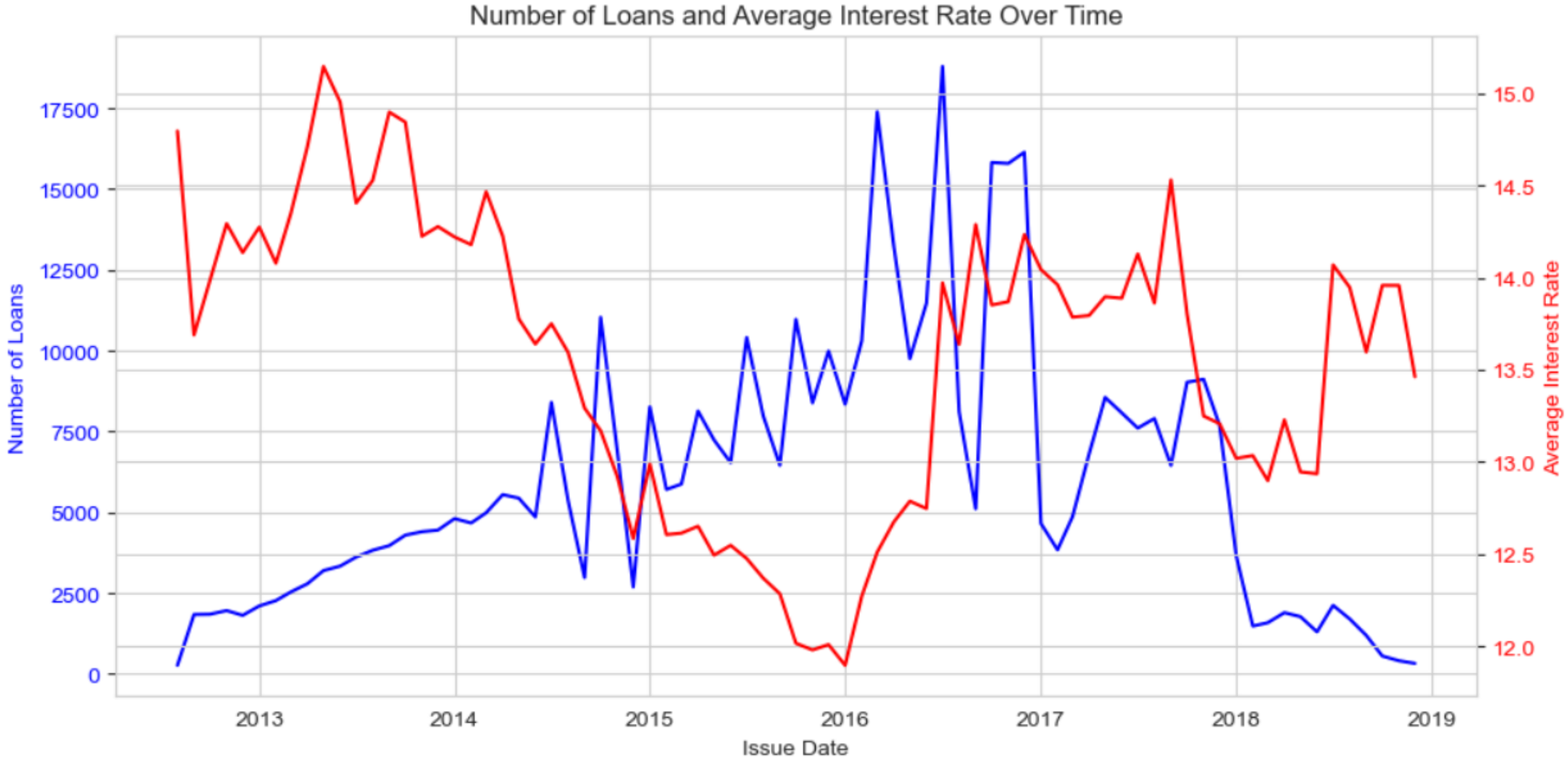
Pre-Processing Steps

- Extensive Data Cleaning
- Remove nulls due to API changes
- Removal of “leaky” features
- Balancing



1ST FINDING

- Loans issued sensitive to economic data



MODEL COMPARISON

	Logistic Regression	SVM	Decision Tree
Accuracy	0.656	0.655	0.62
Recall	0.66	0.69	0.61
F1 score	0.75	0.76	0.72

PRODUCT DEMO

Rudimentary Figma Sketch

- Borrower attributes on the left
- Log reg prediction with feature weights on the right.