

# Loan Defaults

2007 – 2017



# What is Lending Club?



# Objective & Value



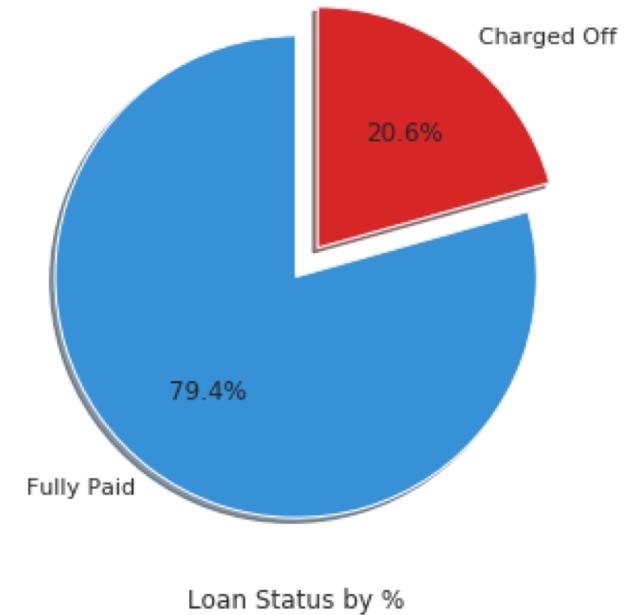
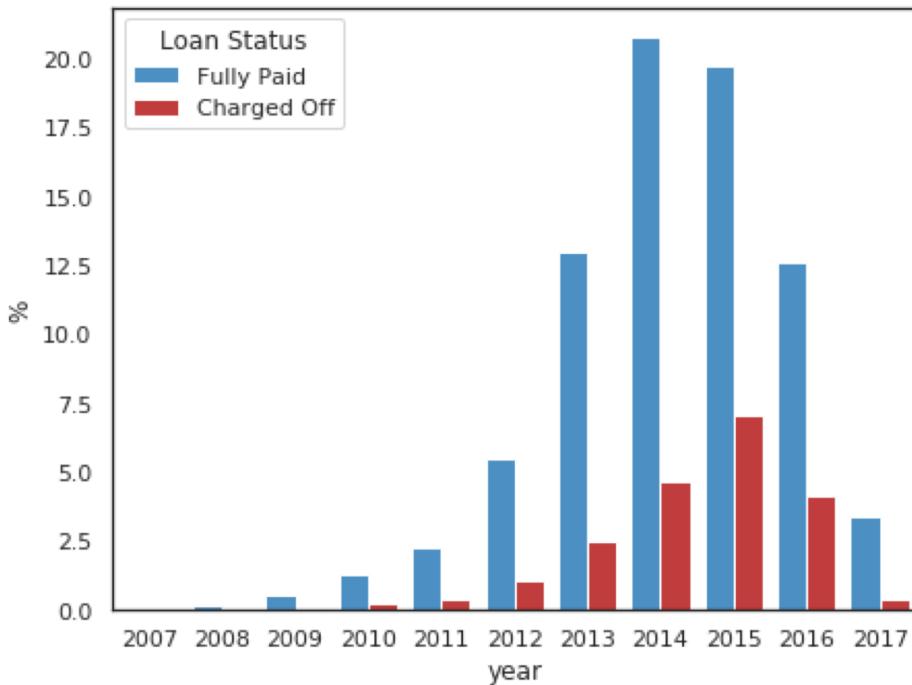
- Predict whether a loan will be “Charged Off” or “Fully Paid”
- Help investors optimize return on investment

# Methodology



<input type="checkbox"/> Investment	Rate	Term	FICO®	Amount ▲	Purpose	% Funded	Amount / Time Left
<input type="checkbox"/> \$0	D 5	36	665-669	\$1,000	Moving - Relocation	<div style="width: 75%;">75%</div>	\$250 13 days
<input type="checkbox"/> \$0	B 3	36	685-689	\$2,000	Medical Expenses	<div style="width: 60%;">60%</div>	\$800 13 days
<input type="checkbox"/> \$0	C 1	36	695-699	\$2,200	Medical Expenses	<div style="width: 55%;">55%</div>	\$975 13 days
<input type="checkbox"/> \$0	B 2	36	670-674	\$3,000	Credit Card Payoff	<div style="width: 73%;">73%</div>	\$800 13 days
<input type="checkbox"/> \$0	A 3	36	760-764	\$3,000	Other	<div style="width: 89%;">89%</div>	\$325 13 days

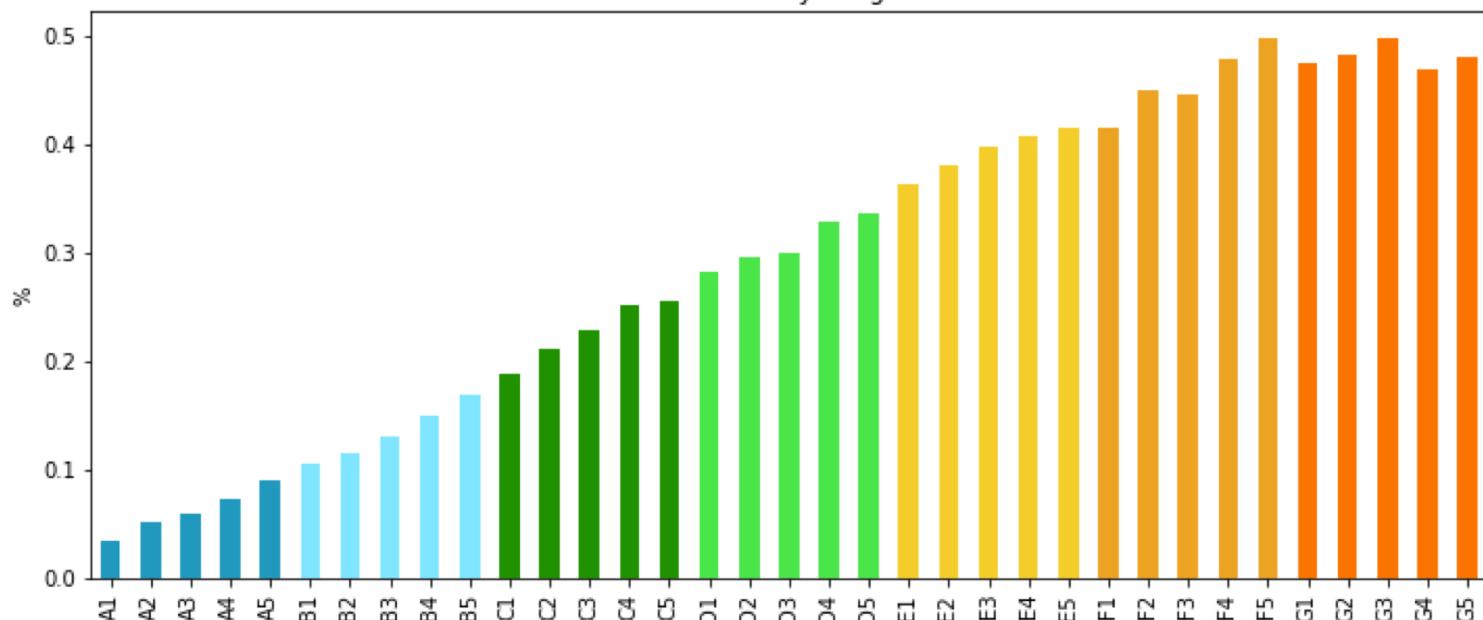
# Findings



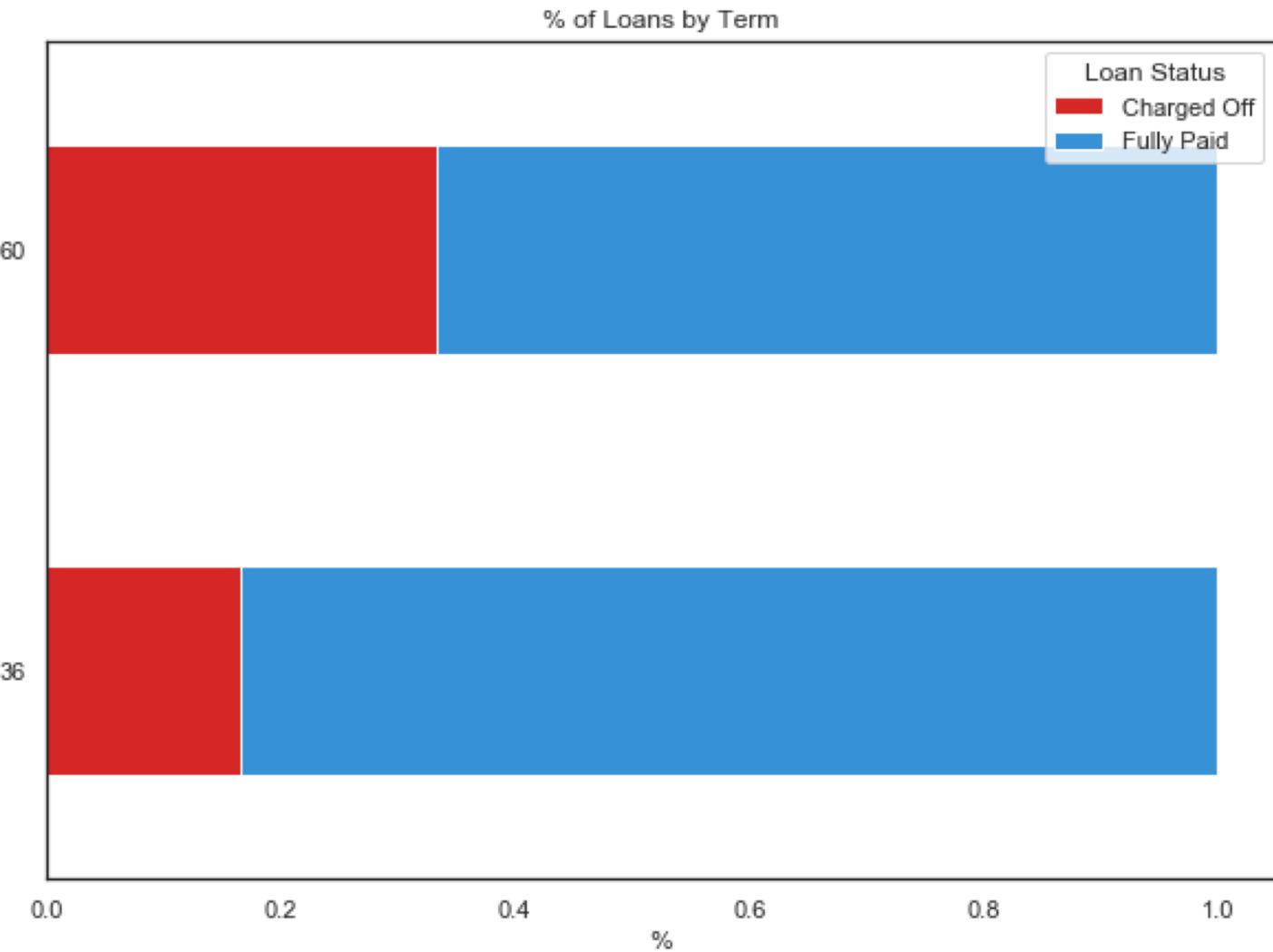
# Subgrade

## How investing at Lending Club works

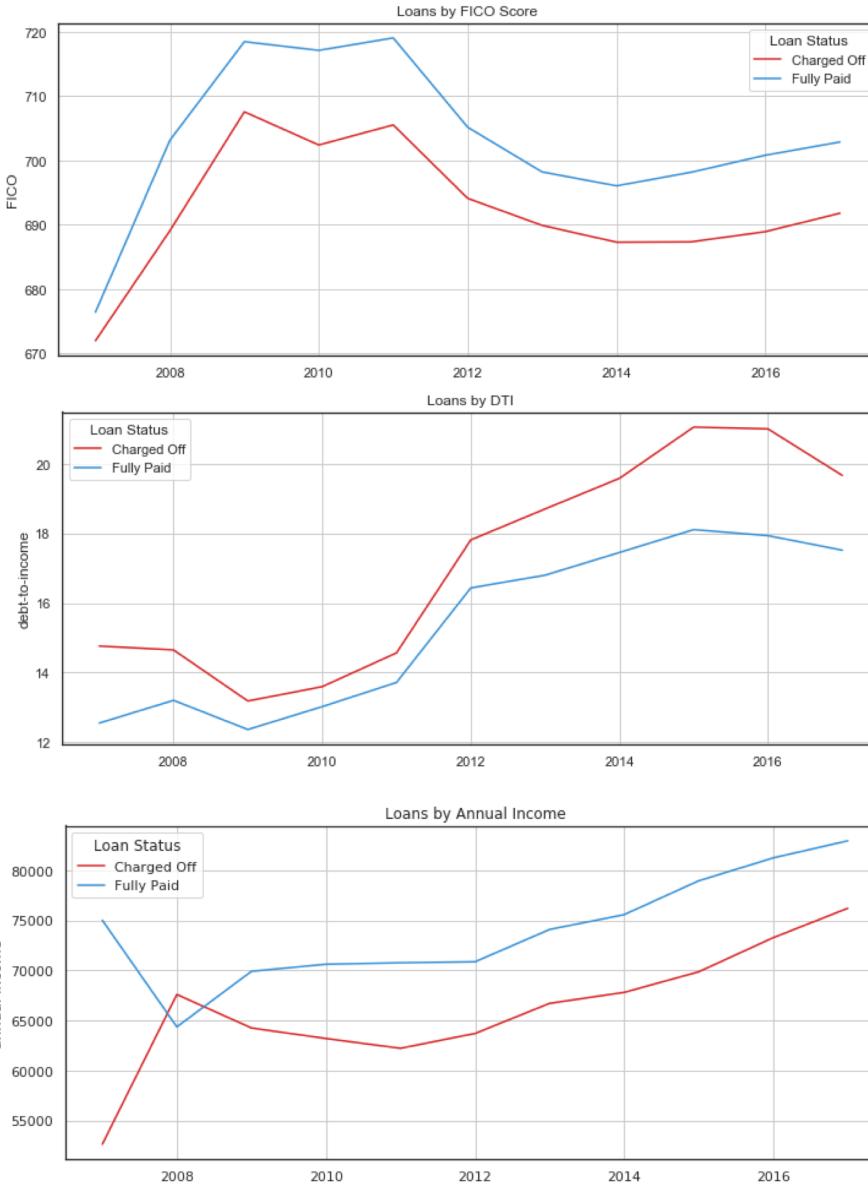
After reviewing each borrower's credit profile, we assign a grade (from A to G) to each loan. A higher loan grade corresponds to a lower interest rate for the borrower and a potentially lower rate at which borrowers default on their loans.



# Term



# FICO DTI Annual Income



# Conclusion & Future Work

- Model yielded 80% accuracy, can predict current and future loans
  - Choose loans with 36 month term
  - Loans of subgrade C1 and higher had 80% chance to be fully paid
  - Use FICO, DTI, and annual income to further filter between loans
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- More time and resources could improve results
  - Gather more current data from Lending Club



# Q&A

