

Peer to Peer Lending: Optimal Decisions for Investors and Lending Companies

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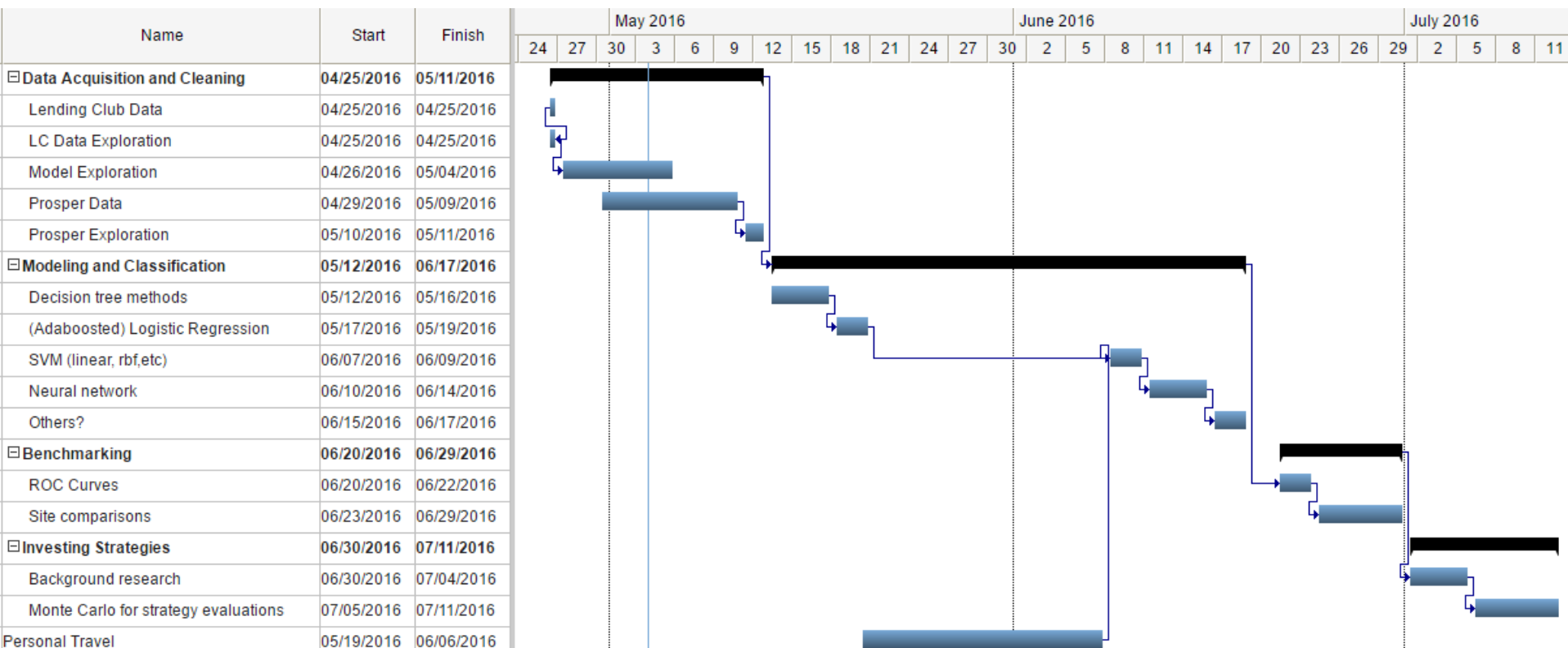


Background

Various companies created to crowdfund personal loans (Lending Club, Prosper, etc).

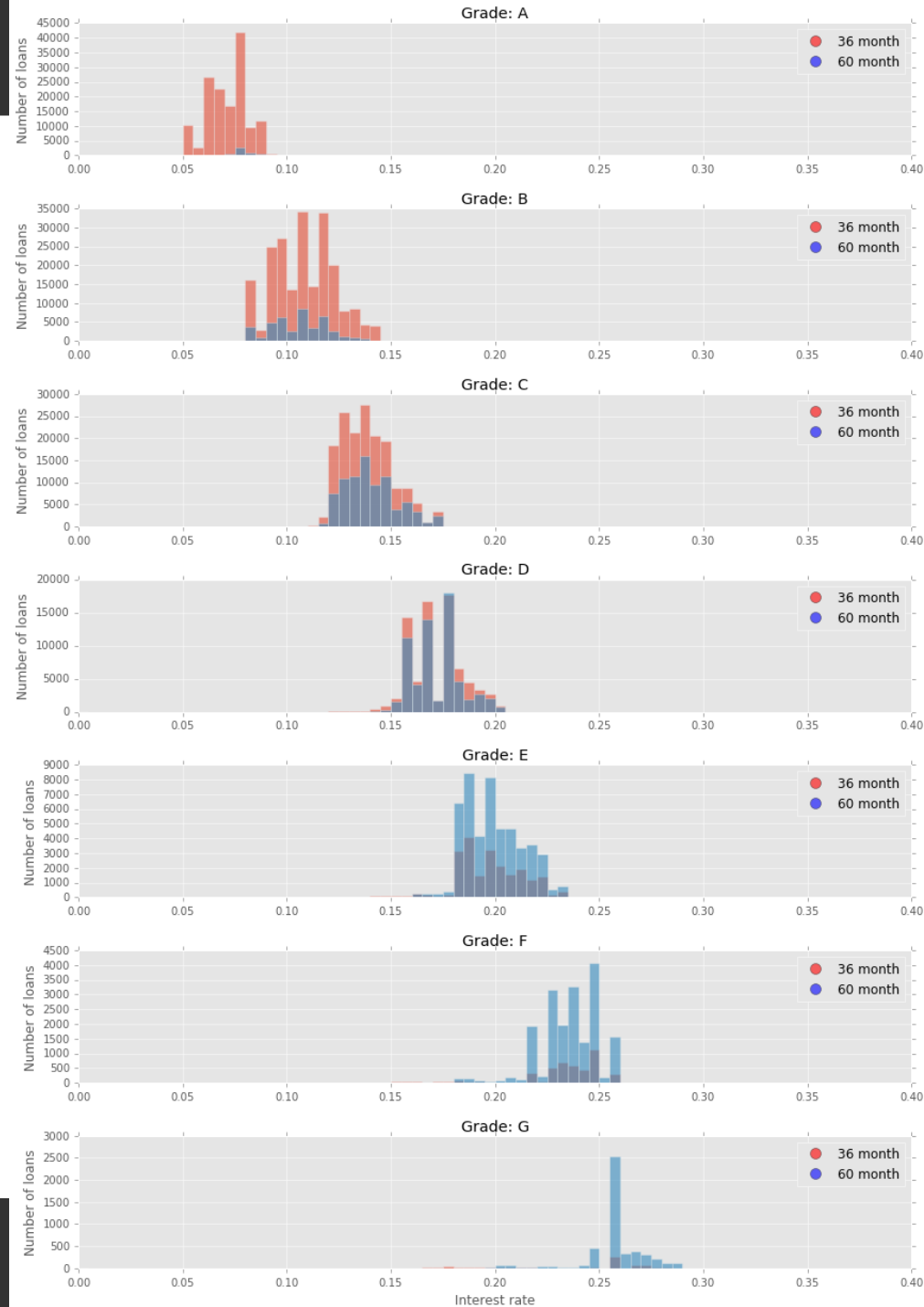
- How to best identify good/bad loans?
- How do different sites compare?
- What information matters? What is the “best” site?
- Can we improve on company’s internal score?
- How do investment strategies compare?

Research Plan



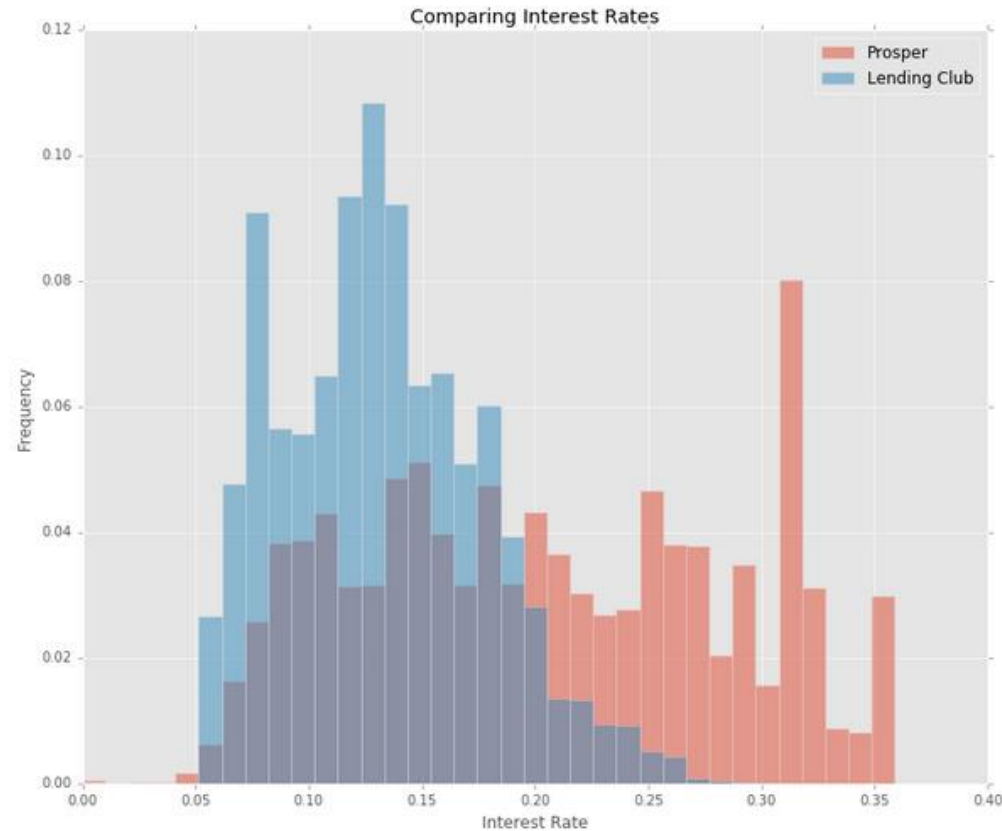
Previous Work

- Lending Club (LC) data acquisition/prep
- Exploratory analysis
- Early tests of various classifiers (limited dimensions)



Progress

- Obtained Prosper data
 - Database merging problem: loan histories and loan applications don't have matching identifiers
 - Less records than LC (~100k vs 800k) but much more application data



| | Lending Club | Prosper |
|----------------|--------------|---------|
| Records | 800k | 100k |
| Useful columns | 100 | 500 |
| Max Interest | 29% | 36% * |
| Bad loan rate | 6.10% | 13.80% |

Preliminary Classification Results: LC

Lending Club
data, 32 features

However, ROC
curve may not
be the best
metric for
performance
evaluation!

