## LOAN DATA FROM PROSPER

## BY RICHARD MADU

This data set contains 113,937 loans with 81 variables on each loan, including loan amount, borrower rate (or interest rate), current loan status, borrower income, and many others. For this analysis we are going to use only 12 of them which Loan Status, Prosper Score, Employment Status, Borrower's APR, Prosper Rating (Alpha), Credit Grade, Terms and so on.

After carrying out some wrangling I sort to get some insights from the data by using matplotlib and seaborn to visualize. Below are the key findings from the dataset:

- > 49.7% OF ALL LOAN STATUSES ARE CURRENT. MAKING IT THE MOST POPULAR LOAN STATUS.
- > THERE ARE SLIGHTLY MORE HOME OWNERS THAN NON HOME OWNERS
- > MOST OF THE BORROWERS ARE EMPLOYED
- > THE MOST POPULAR LOAN TERM IS 36 MONTHS(3 YEARS) AND THE LEAST POPULAR LOAN TERM IS 12 MONTHS (1 YEAR)
- > THE BORROW'S APR IS NORMALLY DISTRIBUTED AND THE MODE APR IS BETWEEN 0.15 0.2
- > Most of the costumers have a 4 score which is represent a moderate risk
- > THERE IS A PEFECT POSITIVE RELATIONSHIP BETWEEN BORROWERS APR AND THE LENDERS YIELD
- > THERE IS A POSITIVE RELATIONSHIP THE MONTHLY LOAN PAYMENT AND LENDER'S YIELD
- > ONLY THE EMPLOYED GROUP HAS MORE HOME OWNERS THAN NON HOME OWNER

> FROM THIS BAR CHART WE CAN SEE THAT PERSONS WITH LOW CREDIT ARE MOST LIKELY HOME **OWNERS** > MOST PEOPLE TAKE LOAN IN THE RANGE OF 2500 - 5000 AND THEIR MONTHLY LOAN PAYMENT IS **BETWEEN 0-250** > PEOPLE IN THE UNEMPLOYED, RETIRED AND OTHERS GROUPS TAKE LOANS OF LESSER AMOUNT (IN THE REGION OF 2500-5000) THAN THE EMPLOYED AND SELF-EMPLOYED > THERE IS A POSITIVE RELATIONSHIP BETWEEN INCOME AND THE AMOUNT OF LOAN PEOPLE TAKE > LOANS OF LESSER TERM HAVE A HIGHER MONTHLY PAYMENT. THEY ALSO HAVE A LOW LOAN AMOUNT > THERE IS A POSITIVE RELATIONSHIP BETWEEN THE MONTHLY PAYMENT AND BORROW'S APR FOR BOTH HOME OWNERS AND NON HOME OWNERS