

# MFP Nutrition Survival Analysis



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# MyFitnessPal

- API Requested from Singapore Management University
- Dataset Includes:
  - Dates from Sept. 2014 - Apr. 2015
  - 587,187 days of food diary records logged by 9.9K MyFitnessPal users



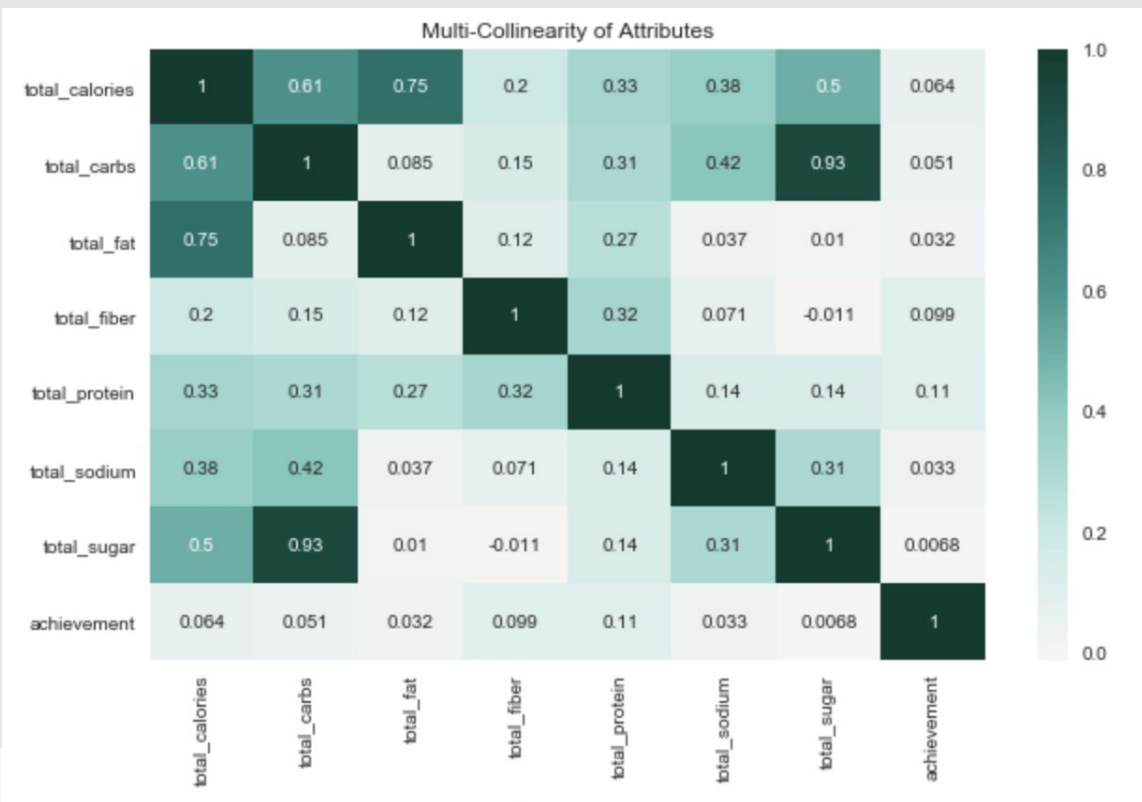
# Business Case

1. Can we predict when or if a user decides to churn or quit using an app?
  2. Is there a certain attribute that contributes to a user quitting the platform?
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# Data Preparation

- Cleaning Nested Dictionaries
  - Timeline Factorization
  - Feature Analysis
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# Multi-Collinearity of Attributes

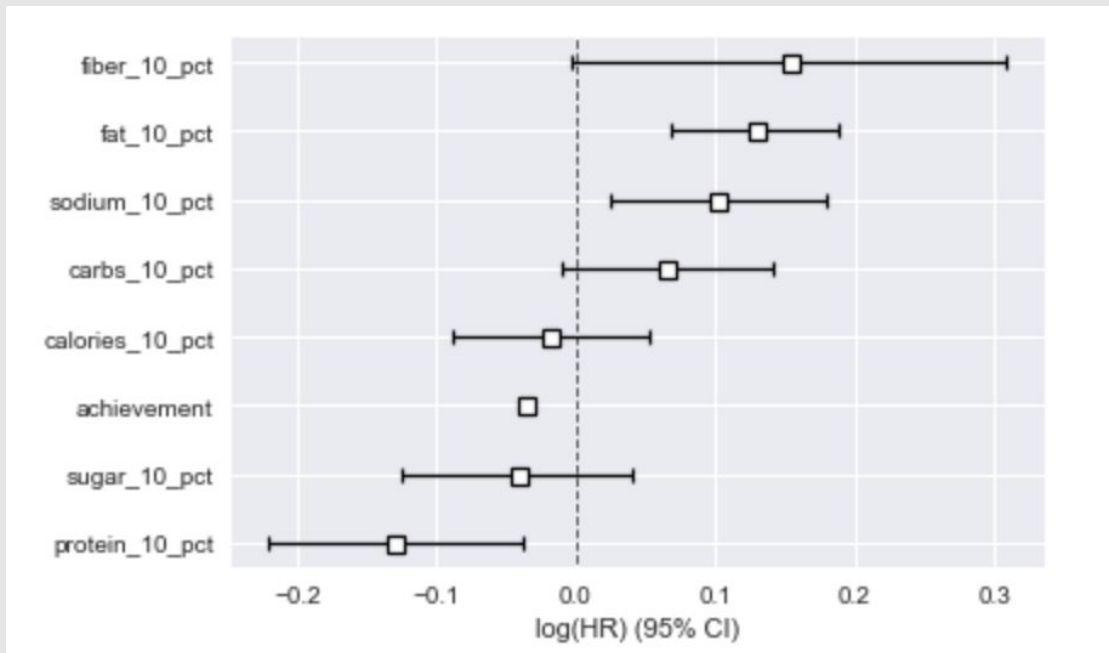


# Survival Regression Analysis

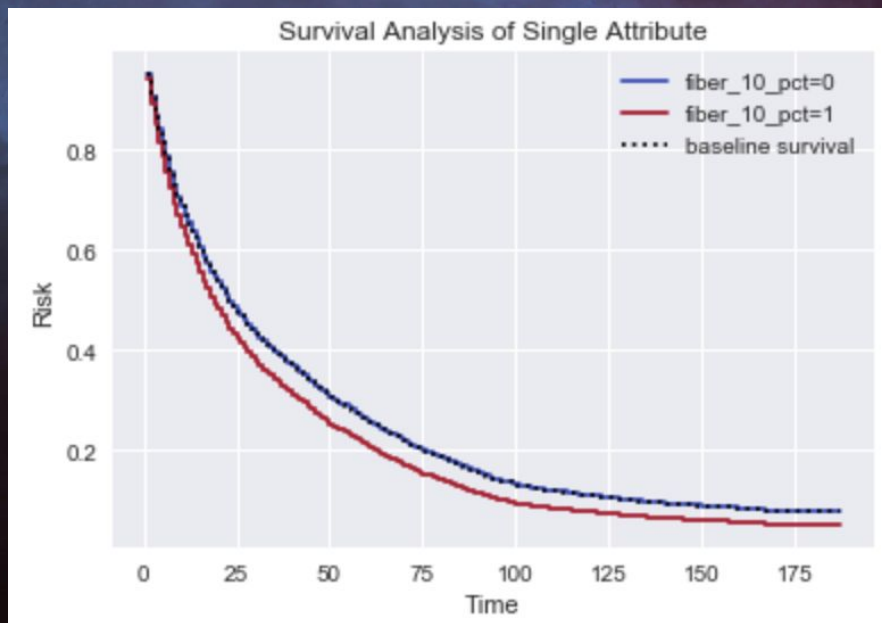
Regression model:  
concordance = 0.65

events: 7107 users

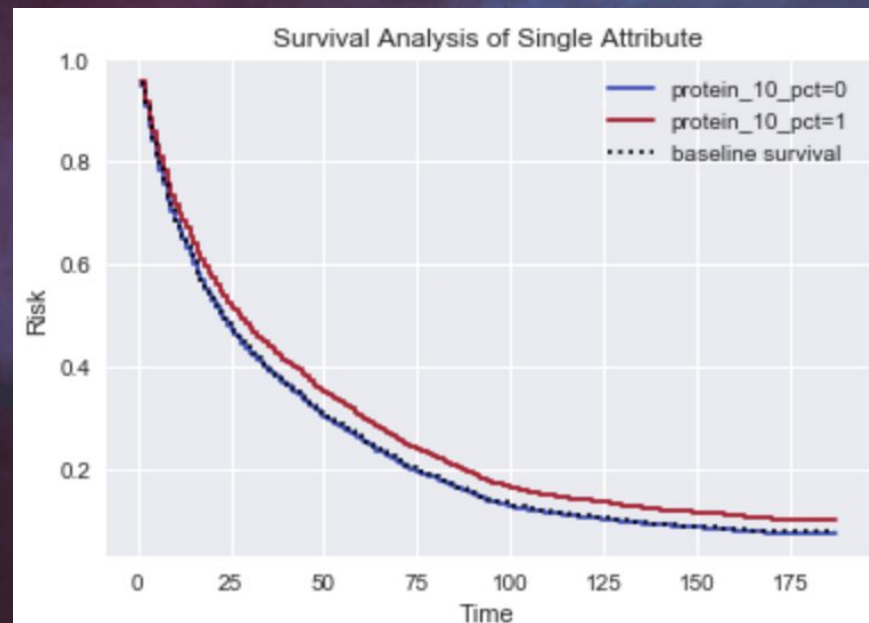
censored: 2789 users



## Fiber



## Protein



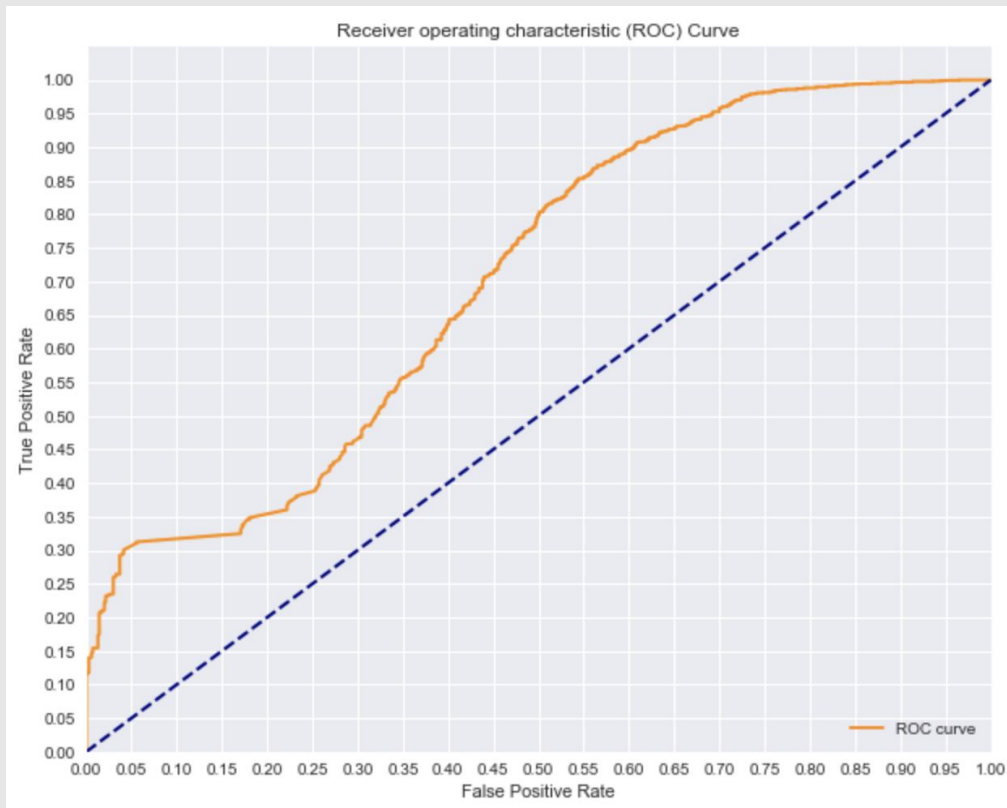
1 = Churned  
0 = Still using the program



# Logistic Regression

ROC Curve

AUC score = 0.70





# Next Steps:

- Acquire more user data to greatly improve regression models
- Cluster using K-Means to find similarly related groups
- Enhance knowledge behind survival regression model



# Thanks!

Any Questions?

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