Mortgage Delinquency

Cohort 16 Capstone Project

Certificate of Data Science at Georgetown University School of Continuing Studies.

Table of Contents

[**Team members:** 2](#_Toc22626623)

[**Introduction** 2](#_Toc22626624)

[**Hypothesis and Application** 2](#_Toc22626625)

[**Domain:** Mortgage Delinquency/Default Rate Data 2](#_Toc22626626)

[**Hypothesis:** 2](#_Toc22626627)

[**Application**: 2](#_Toc22626628)

[**Project Pipeline** 3](#_Toc22626629)

[**Data Ingestion** 4](#_Toc22626630)

[**Wrangling** 4](#_Toc22626631)

[**Exploratory Analysis** 4](#_Toc22626632)

[**Computation and Analysis** 4](#_Toc22626633)

[**Modeling** 4](#_Toc22626634)

[**Results** 4](#_Toc22626635)

[**Model Retraining** 4](#_Toc22626636)

[**Application** 4](#_Toc22626637)

[**Conclusion** 4](#_Toc22626638)

[**Potential future work** 4](#_Toc22626639)

[**Bibliography** 4](#_Toc22626640)

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# **Introduction**

# **Hypothesis and Application**

## **Domain:** Mortgage Delinquency/Default Rate Data

## **Hypothesis:**

To take key performance indicators and create a predicative model that will allow an accurate prediction of the default or delinquency rate of a mortgage within a 60-80% accuracy.

**Project Description:**

* Mortgage Delinquency/Default rate using key performance indicators (KPI) to build a data frame model which will be used for predictive analytics to determine delinquency/default of the mortgage along with current state of the economy.
* Utilizing statistical trend and regression analysis and methodologies to test the model. Utilizing test data to test the model to accurately forecast the probability that a mortgage with become delinquent/default.
* Present the results of the model indicating the accuracy of the model and the visualization of results.

## Application:

# **Project Pipeline**

## System Design

# **Data Ingestion**

# **Wrangling**

# **Exploratory Analysis**

What python modules used?

# **Computation and Analysis**

# **Modeling**

# **Results**

# **Model Retraining**

# **Application**

# **Conclusion**

# **Potential future work**

# **Bibliography**

<https://www.investopedia.com/terms/r/realestateowned.asp>