



ST. FRANCIS XAVIER UNIVERSITY

CSCI - 525: MACHINE LEARNING DESIGN

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Phase 2 Report

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Introduction

We have analyzed Airbnb's 2023 New York City dataset and are using machine learning to predict property prices. In addition to price prediction, we are conducting experiments on the property titles written by hosts to determine if they influence property prices, by applying a bag-of-words algorithm to the titles.

Currently, Airbnb does not provide any guidance to new hosts on how to price their properties or the minimum number of nights other hosts are setting. Features like these could be helpful for new hosts when starting out. Additionally, if a tool suggested that using a better title could result in a higher price, it would indicate that optimizing property titles might lead to increased property values.