



UNIVERSITÀ DI PISA

Artificial Intelligence and Data Engineering

Data Mining and Machine Learning

AirBnb Price Estimation using Machine Learning

Project Documentation

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1 — Introduction

Housing prices are an important reflection of the economy, and pricing a rental property on Airbnb, therefore, can be a challenging task for the owner as it determines the number of customers for the place. On the other hand, customers have to evaluate an offered price with minimal knowledge of an optimal value for the property. This projects aims to develop a price prediction model using a range of machine learning methods. Parlare degli algoritmi che si useranno (da fare dopo gli altri capitoli).

1.1 Goals

1.2 Initial Dataset

2 — Preprocessing

2.1 What can be preprocessed now?

Nel senso che essendo unsupervised lo possiamo fare prima di splitting in train/test

2.2 Data Cleaning and Reduction

2.2.1 Removing Noisy and Irrelevant attributes

Metterci screenshot di excel o numbers

3 — Classification

3.1 Strategies

Come dividiamo train e test, quali classificatori scegliamo, quali algoritmi di attribute selection

3.1.1 Train and Test Splitting

3.1.2 Chosen Classifiers

3.2 Building Classification Models

Metterci anche il codice

3.2.1 Procedure

3.2.2 Implementation

3.3 Performance Evaluation and Effects of Attribute Selection

Metterci codice, screenshots, procedure di valutazione e un SACCO DI ROBA

3.4 Conclusions

4 — AirBnb Price Estimator App

4.1 Introduction

4.2 Functional Requirements

4.3 Application Guide