

# Example

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#

Hands-on Example with MGWR

**Notebook Outline:**

An example of hedonic house price modeling using MGWR - Section 1 - Section 2 - Section 3

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## 1 Introduction to the Dataset

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### 1.0.1 Please use [this link](#) to directly download a csv of the dataset

The raw data has been obtained from <https://www.kaggle.com/harlfoxem/housesalesprediction>. The data are cleaned and aggregated to the census tract level for King county, WA to make it smaller in size and manageable for the workshop.

### 1.0.2 Study area and aggregation

### 1.0.3 Aggregated dataset snapshot

- **houses** - number of houses in the census tracts

**Dependent variables**

- **avg\_price** - average house prices in the census tracts

OR

- **ln\_avg\_price** - log-transformed average house prices in the census tracts

**Independent variables**

- **avg\_tech** - average technology related jobs in the census tracts
- **avg\_unemp** - average unemployment rate in the census tracts
- **avg\_index** - average number of house with a view to the waterfront
- **avg\_basement** - average basements in the houses in the census tracts

- **avg\_water\_dist** - average distance to nearest waterfronts from the houses in the census tracts
- **avg\_sqft** - average square footage of living area in houses in the census tracts
- **avg\_age** - average age of housing units in the census tracts

### Dependent variable distribution

Hence, we use the log-transformed dependent variable *ln\_avg\_price*

## 2 Loading the Dataset

Open the [MGWR GUI software](#) on your desktop to follow along!

At this stage I am going to do the steps elaborated below live. The screenshots of the steps below will guide you if you need additional reference.

*Please note, the screenshots below are taken on a Windows system. If you are using the software on Mac, the interface might differ slightly.*

### 2.0.1 1. Loading the dataset and variables

### 2.0.2 2. Load the dependent and independent variables

## 3 Spatial Weighting Kernels and other Options

### 3.0.1 Advanced options

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