

Energy Consumption Prediction in the Home

By Faisal Hameed

Introduction

Industry: Energy

Problem Statement

We do not comprehensively understand how appliances in our homes use energy

Goal

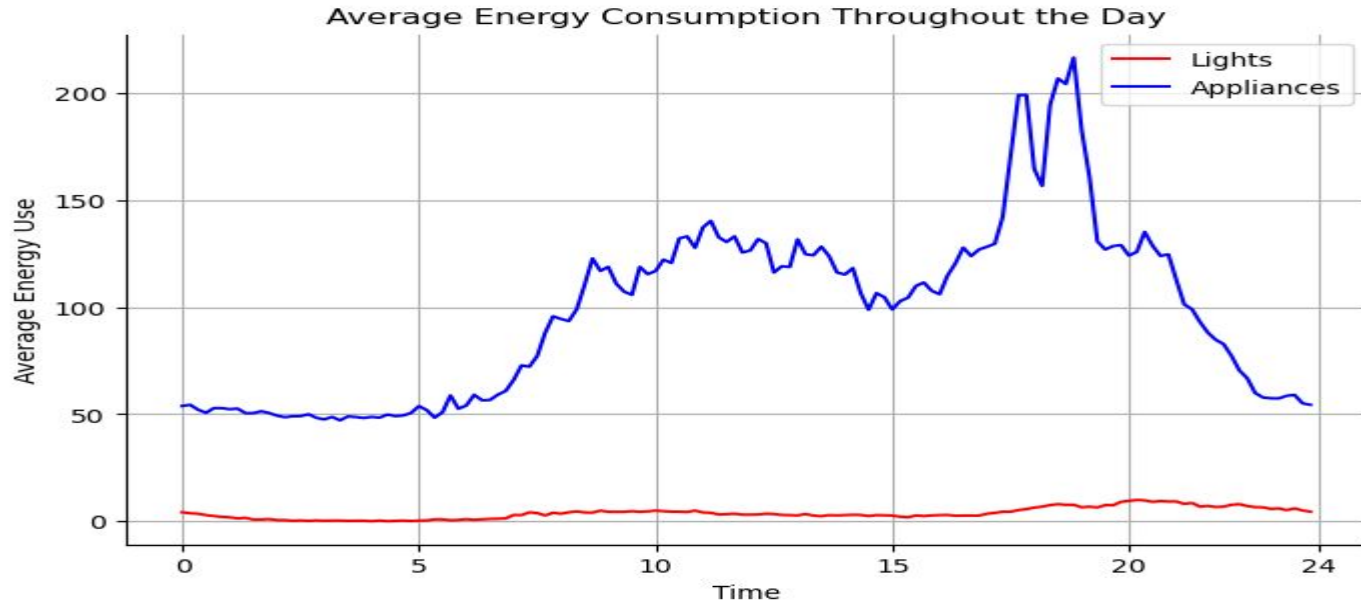
Develop predictive models to help us understand the relationship between appliances energy consumption and predictors

Approach to Tackling the Problem

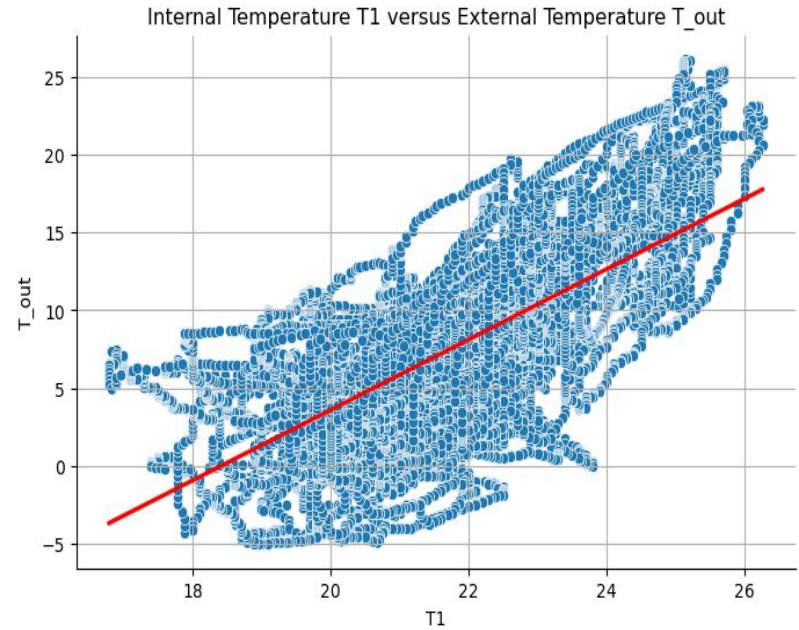
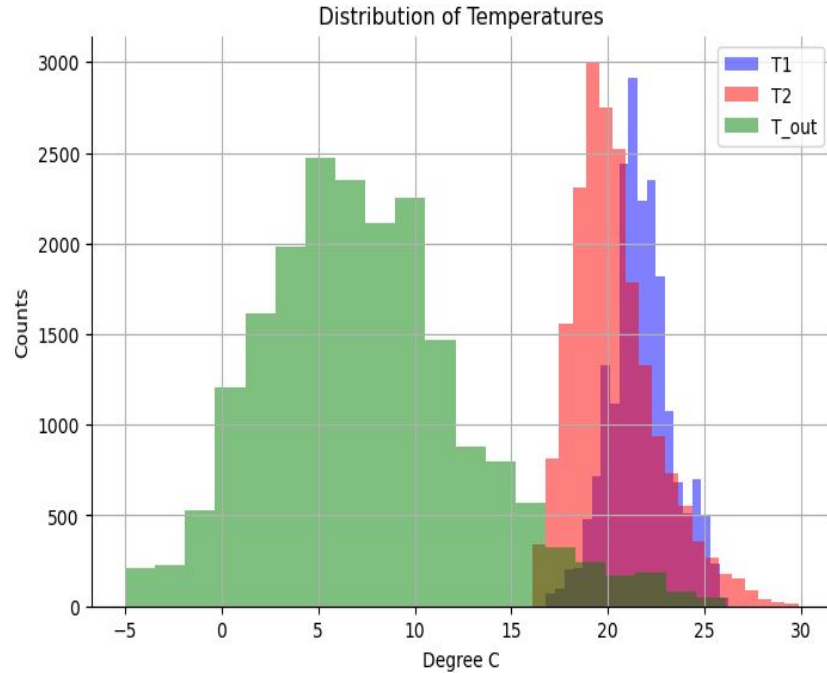
- Data cleaning
- Exploratory data analysis
- Multicollinearity investigation
- Linear regression and other ML techniques

Understanding the Dataset

- Energy dataset of a house in Belgium from **Jan 2016- May 2016**
- Features: energy use, temperature, relative humidity
- The dataset contains 19,735 rows and 29 attributes (columns)



Understanding the Dataset



Temperature data has a normal distribution

Potential Impact of Solution

- Grid Planning
- Detect abnormal energy use patterns
- Energy management system
- Demand side management

