

# CS 418 Final Project

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1. Problem Selection
2. Data Collection
3. Data Preparation
4. Data Exploration

Figure 1: Drug Usage

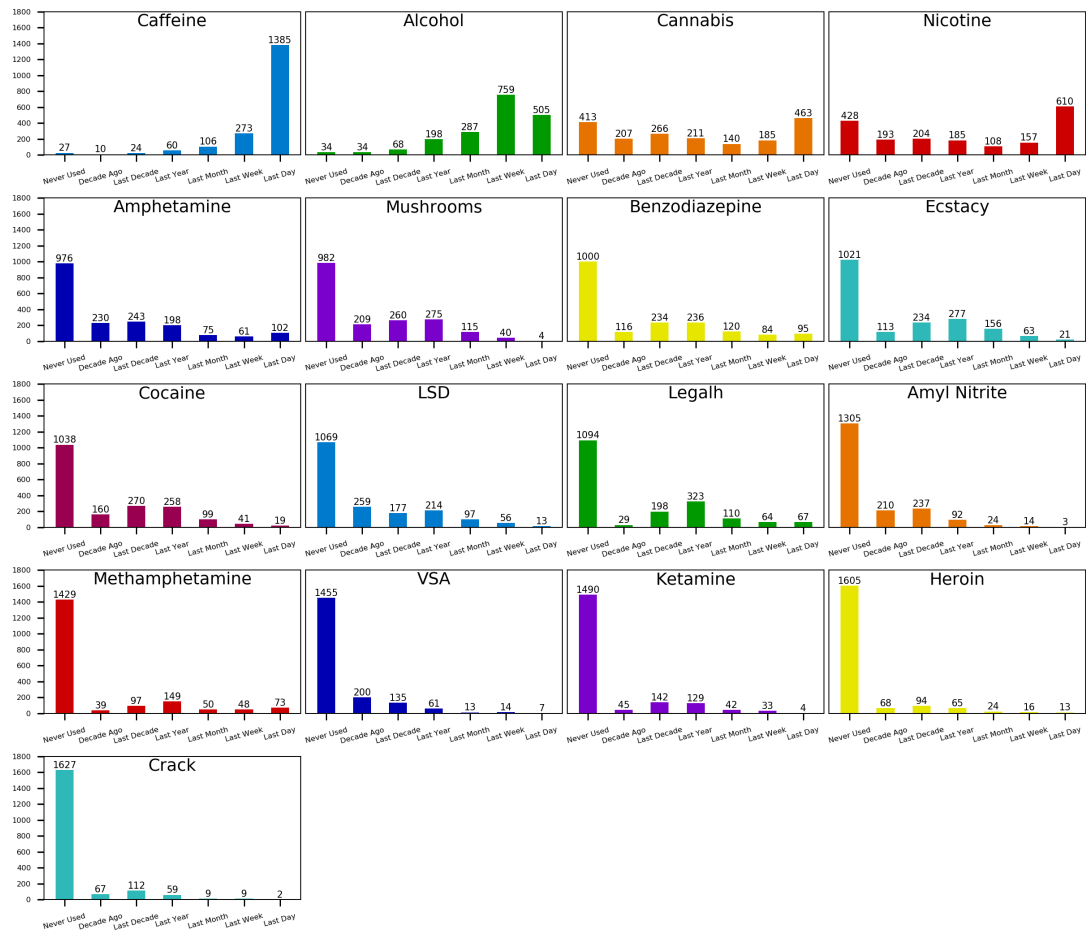


Figure 2: Drug Usage by Personality Trait

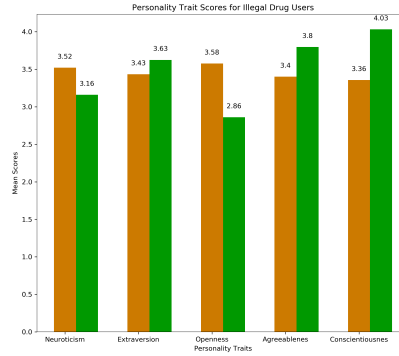
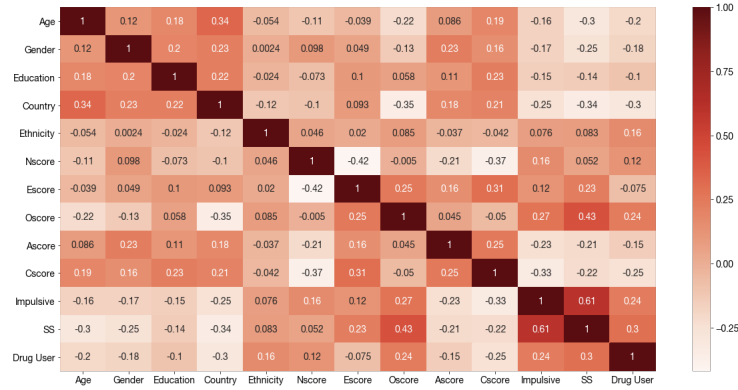


Figure 3: Heatmap of Correlation Matrix



## 5. Data Modeling

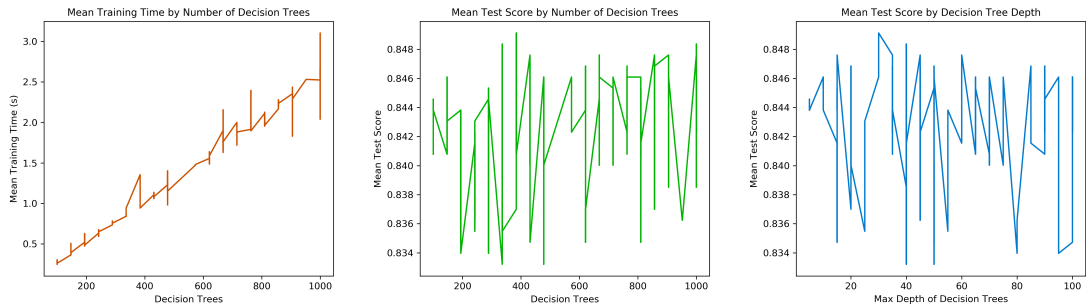
Decision Tree Classifier

Random Forest Classifier

Feature Selection

Grid Search

Figure 4: Hyperparameter Tuning with Grid Search



Clustering

## 6. Results