

CS 418 Final Project

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

Figure 1: Drug Usage

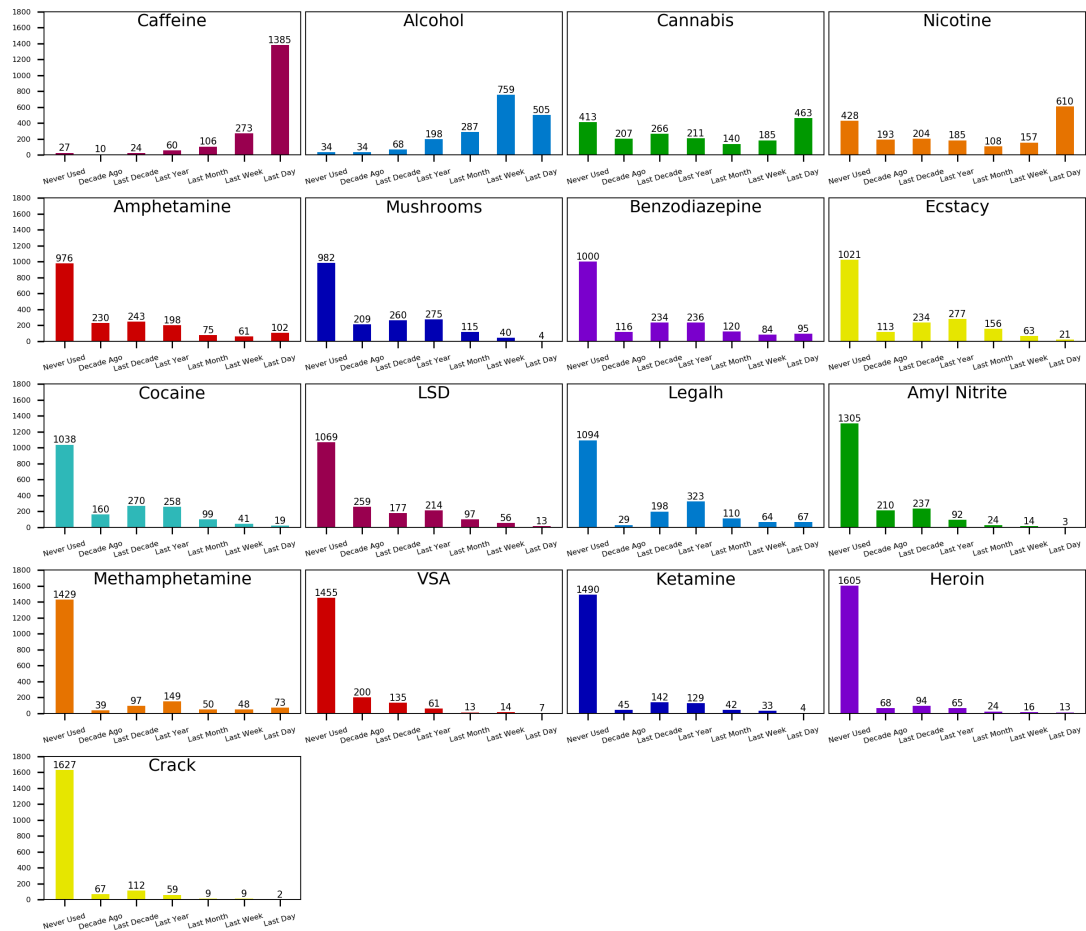


Figure 2: Illegal Drug Usage by Gender

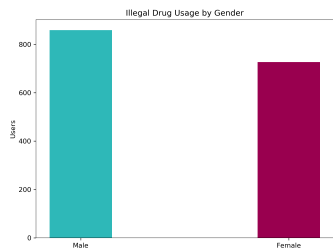


Figure 3: Illegal Drug Usage by Personality Trait

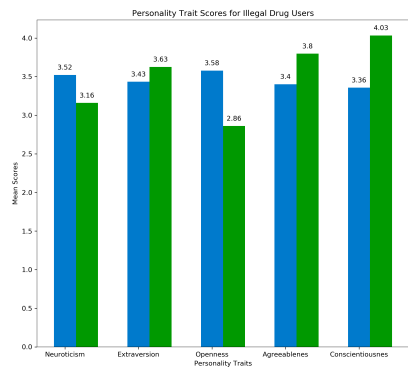
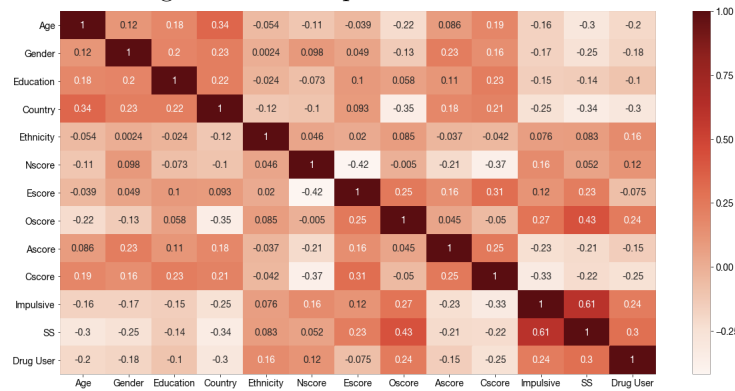


Figure 4: Heatmap of Correlation Matrix



5. Data Modeling

Decision Tree Classifier

Random Forest Classifier

Feature Selection

Grid Search

Figure 5: Hyperparameter Tuning with Grid Search



Clustering

6. Results