DEC520-B-team12-Ashmika Gupta-Daegi Kang-Joyce Gao-Rumeysa Dogan-Sherry Zhuang-Wenxin Sun-Zhiyang Ou Appendix - Graph

Exhibit-1

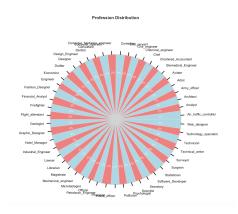


Exhibit-2A

Exhibit-2B

PCA: Variance Explained by Factors

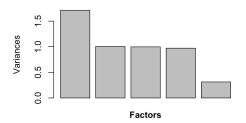


Exhibit-3

```
Standard deviations (1, ..., p=5): [1] 1.3085195 1.0027673 0.9987122 0.9859409 0.5592218  

Rotation (n x k) = (5 x 5): PC1 PC2 PC3 PC4 Income -0.001531146 0.64104461 -0.747683049 0.17328224 -0.001531146 0.64104461 -0.747683049 0.17328224 -0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001531146 0.001
```

```
        Income
        -0.001531146
        0.64104461
        -0.747683049
        0.17328224
        -0.001669008

        Age
        0.189600555
        0.29275978
        0.033961598
        -0.93530102
        -0.049009707

        Experience
        0.697418373
        -0.03185462
        -0.008560035
        0.09390701
        0.709719025

        CURRENT_JOB_YRS
        0.691034820
        -0.05831022
        -0.013180890
        0.15817826
        -0.702763614

        CURRENT_HOUSE_YRS
        0.011303807
        0.70635594
        0.663000497
        0.24768200
        -0.004179894
```

Exhibit-4

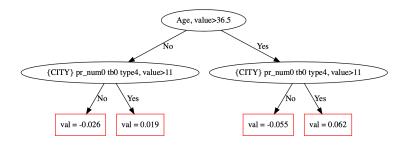


Exhibit-5

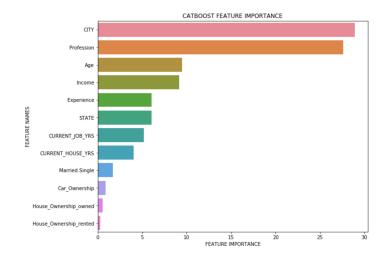


Exhibit-6: Decision tree confusion matrix

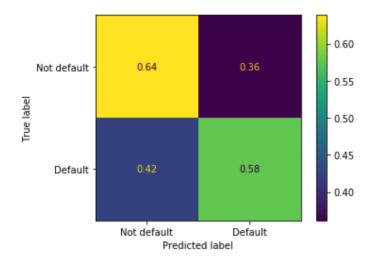


Exhibit-7: Decision tree ROC curve

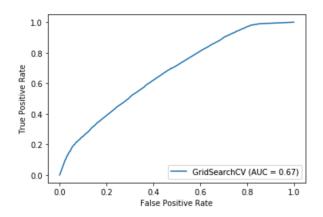


Exhibit-8: KNN confusion matrix

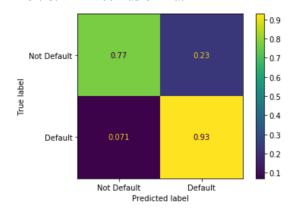


Exhibit-9: KNN ROC Curve

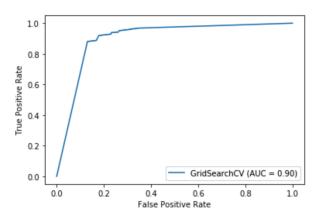


Exhibit-10: CATBoost confusion matrix

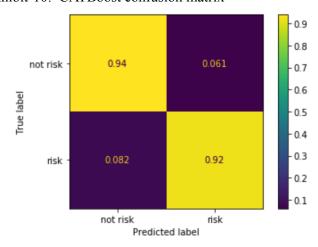


Exhibit-11: CATBoost ROC Curve

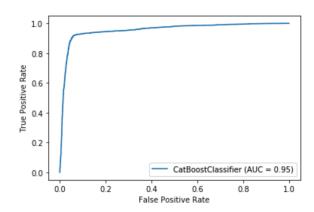


Exhibit-12: Model Evaluation

