

03_Bitcoin_Alpha_histograms

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```
[1]: import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
```

0.1 Bitcoin Alpha

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[2]: bitcoin_alpha_gf = pd.read_csv("bitcoin_alpha_gf.csv")
for col in bitcoin_alpha_gf.columns[1:-1]:
    x = bitcoin_alpha_gf.loc[bitcoin_alpha_gf["label"] == 1, col]
    y = bitcoin_alpha_gf.loc[bitcoin_alpha_gf["label"] == 0, col]

    bins = np.linspace(min(bitcoin_alpha_gf[col]), max(bitcoin_alpha_gf[col]),
↪50)

    plt.hist(round(x, 5), bins, alpha=0.5, label='benign', weights=np.
↪ones(len(x))/len(x))
    plt.hist(y, bins, alpha=0.5, label='fraudulent', weights=np.ones(len(y))/
↪len(y))
    plt.legend(loc='upper right')
    plt.title(col)
    #plt.savefig(f'./charts/{col}.pdf')
    plt.show()
```



















































































































































































































































































