- 0.8

- 0.2

- 0.0

- -0.6

Correlation Matrix for NSL-KDD Train (Numeric Features)

duration -1.00<mark>0.07</mark>0.03-0.000.010.000.000.01-0.060.040.050.090.050.10-0.000.07-0.000.00-0.080.040.07-0.07<mark>0.200.20</mark>0.07-0.01-0.040.05-0.11-0.12<mark>0.250.23</mark>-0.03-0.060.060.060.170.20 hot -0.000.00-0.000.000.010.00<mark>1.00</mark>0.00<mark>0.12</mark>0.000.020.000.000.030.00-0.000.00<mark>0.86</mark>-0.070.030.060.060.030.03<mark>0.07</mark>-0.020.030.01-0.050.040.01-0.030.020.060.060.030.03 $logged_in-0.060.000.000.010.070.01 \\ \underbrace{0.12-0.01}_{0.10} \\ \underbrace{0.010.050.030.020.030.020.030.020.050.000}_{0.010.050.030.020.050.000} \\ \underbrace{0.540.200.490.490.490.290.280.60}_{0.0290.280.60} \\ \underbrace{0.60-0.220.13-0.400.620.60}_{0.020.13-0.400} \\ \underbrace{0.620.60-0.260.160.060.490.490.280.270}_{0.010.050.030.020.030.020.030.020.030.020} \\ \underbrace{0.540.200.490.490.490.290.280.60}_{0.0290.030.020.030.020.030.020.030} \\ \underbrace{0.540.200.490.490.290.280.60}_{0.0290.030.020.030.020.030.020.030} \\ \underbrace{0.540.200.490.490.290.280.60}_{0.0290.030.020.030.020.030} \\ \underbrace{0.540.200.490.490.290.280.60}_{0.0290.030.020.030.020.030} \\ \underbrace{0.540.200.490.490.290.280.60}_{0.0290.030.020.030.020.030} \\ \underbrace{0.540.200.490.490.290.280}_{0.0290.030.020.030} \\ \underbrace{0.540.200.290.280.60}_{0.0290.030.020.030} \\ \underbrace{0.540.200.290.280}_{0.0290.030.020.030} \\ \underbrace{0.540.200.290.280}_{0.0290.030.020.030} \\ \underbrace{0.540.200.290.280}_{0.0290.030.020.030} \\ \underbrace{0.540.200.290.280}_{0.0290.030.020.030} \\ \underbrace{0.540.200.290.280}_{0.0290.030} \\ \underbrace{0.540.200.290.280}_{0.0290.030} \\ \underbrace{0.540.200.290.280}_{0.0290.030} \\ \underbrace{0.540.200.290.280}_{0.0290.030} \\ \underbrace{0.540.200.290}_{0.0290.030} \\ \underbrace{0.540.200.290}_{0.0290.030} \\ \underbrace{0.540.200}_{0.0290.030} \\ \underbrace{0.5$ num_compromised -0.04-0.000.00-0.000.000.030.000.020.01<mark>1.00</mark>0.22<mark>0.36</mark>1.00</mark>0.020.00<mark>0.30</mark>0.00-0.000.01-0.000.01-0.000.000.01-0.000 root shell-0.05-0.000.00-0.000.000.080.020.030.050.221.000.0610.240.060.120.37-0.000.000.030.010.020.020.010.010.03-0.010.010.030.010.01-0.010.001.010.020.020.010.01 is_guest_login -0.00-0.000.000.000.000.010.00<mark>0.86</mark>0.01<mark>0.12</mark>-0.000.000.000.000.000.000.000.001.00<mark>1.00</mark>-0.070.040.060.060.040.04<mark>0.07</mark>-0.010.030.010.070.050.010.040.020.060.060.030.03 $count - 0.080.010.000.010.020.010.070.02 \\ 0.540.010.030.020.010.020.010.030.020.010.030.020.010.030.000.07 \\ 1.00 \\ 0.47 \\ 0.46 \\ 0.45 \\ 0.16 \\ 0.45 \\ 0.16 \\ 0.16 \\ 0.63 \\ 0.22 \\ -0.26 \\ 0.47 \\ -0.40 \\ 0.47 \\ 0.17 \\ -0.14 \\ 0.21 \\ 0.46 \\ 0.46 \\ 0.48 \\ 0.18 \\ 0.17 \\ -0.18 \\ 0.18 \\ 0.17 \\ -0.18 \\ 0.18 \\ -0.1$ serror_rate -0.070.000.000.02-0.040.000.060.02<mark>0.49</mark>0.010.020.010.010.010.010.010.020.000.06<mark>0.46</mark>-0.15<mark>1.00<mark>0.99</mark>-0.230.23<mark>0.76</mark>0.05-0.22<mark>0.40</mark>-0.560.620.020.280.17<mark>0.98</mark>0.98-0.230.23</mark> srv_serror_rate -0.070.000.000.02-0.060.000.060.020.490.010.020.010.010.010.010.010.020.000.06<mark>0.45</mark>-0.15<mark>0.991.00</mark>-0.230.23<mark>0.76</mark>0.04-0.23<mark>0.39</mark>-0.560.620.030.280.17<mark>0.98</mark>0.99-0.240.23 rerror_rate -<mark>0.20</mark>0.010.01-0.000.030.000.030.02-0.290.000.010.010.000.010.010.000.040.16-0.110.230.23<mark>1.00</mark>0.99-0.21<mark>0.27</mark>-0.080.07-0.250.26<mark>0.38</mark>0.030.03-0.230.22<mark>0.93</mark>0.96 $srv_rerror_rate - \frac{0.20}{0.010.01} \\ 0.010.01 \\ 0.010.01 \\ 0.010.030.000 \\ 0.030.000 \\ 0.030.002 \\ - \frac{0.28}{0.000.010.010.010.000.010.010.010.000.010.010.000.010.010.000.010.010.000.010.010.010.000.010.$ diff srv rate -0.01-0.000.000.000.030.000.020.000.220.000.01-0.01-0.0000.01-0.000.01-0.000.01-0.000.01-0.000.01-0.000.01-0.000.01-0.0000.01-0.000.01-0.000.01-0.000.01-0.000.01-0.000.01-0.000.01-0.0000.01-0.000.01-0.000.01-0.000.01-0.000.01-0.000.01-0.000.01-0.0000.01-0.000.01-0.000.01-0.000.01-0.000.01-0.000.01-0.000.01-0.0000.01-0.000.01-0.000.01-0.000.01-0.000.01-0.000.01-0.000.01-0.0000.01-0.000 srv_diff_host_rate -0.040.000.000.04-0.030.000.030.01<mark>0.13</mark>-0.000.01-0.01-0.000.01-0.01-0.000.030.260.080.22-0.230.080.07<mark>0.28</mark>-0.10<mark>1.00</mark>-0.36<mark>0.15 0.29</mark>-0.12<mark>0.25 0.38</mark>-0.230.230.080.08 dst host srv count -0.110.010.000.010.050.010.050.02<mark>0.62</mark>-0.010.010.020.010.020.010.000.070.40<mark>0.20</mark>-0.560.560.560.250.250.71-0.300.15-0.301.000.90-0.390.070.000.570.570.250.25 dst_host_same_srv_rate -0.120.010.000.01-0.050.000.040.00<mark>0.60</mark>-0.000.01-0.020.010.020.010.01-0.000.050.47<mark>0.18</mark>-0.620.620.260.26<mark>0.79-0.330.29-0.52</mark>0.901.00-0.420.140.20-0.640.63-0.260.26 $dst_host_srv_diff_host_rate -0.030.000.000.007-0.020.01-0.020.00-0.060.000.010.010.000.00-0.000.00-0.000.02-0.210.060.170.170.030.03 \\ \underbrace{0.22}_{0.00}-0.09 \\ \underbrace{0.38}_{0.22}-0.09 \\ \underbrace{0.46}_{0.00} \\ \underbrace{0.00}_{0.20} \\ \underbrace{0.00}_{0.20} \\ \underbrace{0.00}_{0.0170.170.04} \\ \underbrace{0.00}_{0.0170.170.$ $dst_host_serror_rate -0.060.000.000.002-0.050.000.060.01 \\ 0.490.000.020.010.000.00-0.010.020.00-0.060 \\ 0.100.020.00-0.060 \\ 0.046-0.15 \\ 0.980.98 \\ 0.230.230.23 \\ 0.760.05-0.23 \\ 0.041-0.570.64 \\ 0.020.280.17 \\ 1.000.99 \\ 0.240.23 \\ 0.240.23 \\ 0.240.23 \\ 0.240.23 \\ 0.250.23 \\ 0.240.23 \\ 0.250$ $dst_host_srv_serror_rate -0.060.000.000.01 -0.060.000.060.01 \\ 0.49 \\ 0.000.020.000.01 \\ 0.000.020.000.01 \\ 0.000.01 \\$ $dst_host_rerror_rate - \textcolor{red}{0.17} - 0.000.01 - 0.010.03 - 0.000.030.02 - \textcolor{red}{0.28} 0.000.010.000.010.000.010.000.010.000.010.000.030.18 - 0.100.230.24 - 0.28 - 0.080.07 - 0.25 - 0.26 - 0.41 - 0.04 - 0.04 - 0.24 - 0.23 - 0.08 -$ count urgent is_host_login num_shells num_access_files srv_count dst_host_rerror_rate logged_in srv_serror_rate rerror_rate srv_rerror_rate dst_host_count dst_host_srv_count dst_host_diff_srv_rate dst_host_srv_diff_host_rate dst_host_serror_rate dst bytes wrong_fragment num_failed_logins num_compromised su_attempted num_root num_file_creations is_guest_login serror_rate diff_srv_rate srv_diff_host_rate dst_host_same_srv_rate dst_host_same_src_port_rate dst_host_srv_serror_rate dst_host_srv_rerror_rate src_bytes root shell