|  |  |
| --- | --- |
| **Feature Name** | **Description** |
| fl\_dur | Flow duration |
| tot\_fw\_pk | Total packets in the forward direction |
| tot\_bw\_pk | Total packets in the backward direction |
| tot\_l\_fw\_pkt | Total size of packet in forward direction |
| fw\_pkt\_l\_max | Maximum size of packet in forward direction |
| fw\_pkt\_l\_min | Minimum size of packet in forward direction |
| fw\_pkt\_l\_avg | Average size of packet in forward direction |
| fw\_pkt\_l\_std | Standard deviation size of packet in forward direction |
| Bw\_pkt\_l\_max | Maximum size of packet in backward direction |
| Bw\_pkt\_l\_min | Minimum size of packet in backward direction |
| Bw\_pkt\_l\_avg | Mean size of packet in backward direction |
| Bw\_pkt\_l\_std | Standard deviation size of packet in backward direction |
| fl\_byt\_s | flow byte rate that is number of packets transferred per second |
| fl\_pkt\_s | flow packets rate that is number of packets transferred per second |
| fl\_iat\_avg | Average time between two flows |
| fl\_iat\_std | Standard deviation time two flows |
| fl\_iat\_max | Maximum time between two flows |
| fl\_iat\_min | Minimum time between two flows |
| fw\_iat\_tot | Total time between two packets sent in the forward direction |
| fw\_iat\_avg | Mean time between two packets sent in the forward direction |
| fw\_iat\_std | Standard deviation time between two packets sent in the forward direction |
| fw\_iat\_max | Maximum time between two packets sent in the forward direction |
| fw\_iat\_min | Minimum time between two packets sent in the forward direction |
| bw\_iat\_tot | Total time between two packets sent in the backward direction |
| bw\_iat\_avg | Mean time between two packets sent in the backward direction |
| bw\_iat\_std | Standard deviation time between two packets sent in the backward direction |
| bw\_iat\_max | Maximum time between two packets sent in the backward direction |
| bw\_iat\_min | Minimum time between two packets sent in the backward direction |
| fw\_psh\_flag | Number of times the PSH flag was set in packets travelling in the forward direction (0 for UDP) |
| bw\_psh\_flag | Number of times the PSH flag was set in packets travelling in the backward direction (0 for UDP) |
| fw\_urg\_flag | Number of times the URG flag was set in packets travelling in the forward direction (0 for UDP) |
| bw\_urg\_flag | Number of times the URG flag was set in packets travelling in the backward direction (0 for UDP) |
| fw\_hdr\_len | Total bytes used for headers in the forward direction |
| bw\_hdr\_len | Total bytes used for headers in the forward direction |
| fw\_pkt\_s | Number of forward packets per second |
| bw\_pkt\_s | Number of backward packets per second |
| pkt\_len\_min | Minimum length of a flow |
| pkt\_len\_max | Maximum length of a flow |
| pkt\_len\_avg | Mean length of a flow |
| pkt\_len\_std | Standard deviation length of a flow |
| pkt\_len\_va | Minimum inter-arrival time of packet |
| fin\_cnt | Number of packets with FIN |
| syn\_cnt | Number of packets with SYN |
| rst\_cnt | Number of packets with RST |
| pst\_cnt | Number of packets with PUSH |
| ack\_cnt | Number of packets with ACK |
| urg\_cnt | Number of packets with URG |
| cwe\_cnt | Number of packets with CWE |
| ece\_cnt | Number of packets with ECE |
| down\_up\_ratio | Download and upload ratio |
| pkt\_size\_avg | Average size of packet |
| fw\_seg\_avg | Average size observed in the forward direction |
| bw\_seg\_avg | Average size observed in the backward direction |
| fw\_byt\_blk\_avg | Average number of bytes bulk rate in the forward direction |
| fw\_pkt\_blk\_avg | Average number of packets bulk rate in the forward direction |
| fw\_blk\_rate\_avg | Average number of bulk rate in the forward direction |
| bw\_byt\_blk\_avg | Average number of bytes bulk rate in the backward direction |
| bw\_pkt\_blk\_avg | Average number of packets bulk rate in the backward direction |
| bw\_blk\_rate\_avg | Average number of bulk rate in the backward direction |
| subfl\_fw\_pk | The average number of packets in a sub flow in the forward direction |
| subfl\_fw\_byt | The average number of bytes in a sub flow in the forward direction |
| subfl\_bw\_pkt | The average number of packets in a sub flow in the backward direction |
| subfl\_bw\_byt | The average number of bytes in a sub flow in the backward direction |
| fw\_win\_byt | Number of bytes sent in initial window in the forward direction |
| bw\_win\_byt | # of bytes sent in initial window in the backward direction |
| Fw\_act\_pkt | # of packets with at least 1 byte of TCP data payload in the forward direction |
| fw\_seg\_min | Minimum segment size observed in the forward direction |
| atv\_avg | Mean time a flow was active before becoming idle |
| atv\_std | Standard deviation time a flow was active before becoming idle |
| atv\_max | Maximum time a flow was active before becoming idle |
| atv\_min | Minimum time a flow was active before becoming idle |
| idl\_avg | Mean time a flow was idle before becoming active |
| idl\_std | Standard deviation time a flow was idle before becoming active |
| idl\_max | Maximum time a flow was idle before becoming active |
| idl\_min | Minimum time a flow was idle before becoming active |