Project Rubric and Submission Guideline
CS621: Network Programming Spring 2023

Compression Detection Client/Server Application	**65 pts**
Config File (enabling the feature and correct parsing)	10
Pre/Post-Probing Phase TCP Connection	10
UDP Packet Train: All packets have the fixed and correct size	10
UDP Packet Train: Don't fragment bit is set	8
UDP Packet Train: Packet IDs are properly set and retrieved	10
UDP Packet Train: Low entropy and high entropy payloads are properly set	10
UDP Packet Train: Source/Destination ports and IP addresses are set	5
Error checking and handling	2

Compression Detection Standalone Application	**21 pts**
TTL is set properly in UDP packet train	5
Head and Tail SYN packets are correctly created as specified	5
Capturing and handling the RST packets	5
Timeout	5
Error checking and handling	1

Network Application Verification	**9 pts**
Packet capture at sender (client/server application)	6
Packet capture at sender (standalone application)	3

Deliverables (in addition to code)	**5 pts**
Code Style (following GNU C Coding Standards)	3
Documentation	2

Submission Guidelines:

You are to submit the following four files to Canvas:

- A compressed file (tar.gz or .zip) that includes all your source files. Do not include any executables, object files, or source files associated with the standard library. You must include your makefile if you have any.
- `README.txt`: This includes (1) the developer's name, (2) complete instructions on how one can build and run your code. `README.txt` is a form of software documentation. You can find instructions on how to create a very good `README.txt` here, and (3) the incomplete required features of your program.[1]
- `client_server.pcap`[2]: The live packet capture at the sender (client/server application) must include *all and only* the traffic generated by your application. You must use appropriate filters to ensure that your pcap file doesn't contain any other traffic but those generated or triggered by your application.
- `standalone.pcap`: Similar to `client_server.pcap`, this live packet capture at sender is for your standalone application.

[1] Partial credits for incomplete features will be given only in presence of detailed documentation of the incomplete features, along with their current limitations and development status.

[2] To generate the pcap file, you *must* run your application with the default values of the parameters in the config file. For those the default values have not been specified in the Project Specification, you can set them to any values.