

# Network Packet Analyzer

## Overview

The Network Packet Analyzer is a Python-based tool that captures and analyzes network packets in real time. It identifies key details such as source and destination IP addresses and the protocol used (TCP/UDP).

## Features

- Captures network packets in real time
- Identifies source and destination IP addresses
- Detects whether the packet uses TCP or UDP
- Lightweight and easy to use

## Requirements

- Python 3.x
- Scapy library (`pip install scapy`)

## Installation

1. Clone the repository or download the script.
2. Install the required dependencies:  
`pip install scapy`

## Usage

Run the script with administrator privileges to capture packets:

```
python packet_sniffer.py
```

## Notes

- Ensure you have the necessary permissions to sniff network traffic.
- Running the script may require `sudo` on Linux/macOS.

# License

This project is open-source and available under the MIT License.