

🔒 DNS Hijacking Detection & Mitigation Project Guide

Tools Used:

Python 3 with dnspython

PowerShell (Windows built-in)

Task Scheduler for automation

Steps:

Install Python

Download from: <https://www.python.org>

Install dnspython:

bash

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`pip install dnspython`

Save Scripts

Save `dns_check.py` and `Reset-DNS.ps1` in the same folder.

Run Detection Script

In PowerShell:

powershell

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cd C:\Users\YourName\Documents\dns_project\

python dns_check.py

Run Reset Script (if hijack detected)

Run PowerShell as Administrator:

powershell

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.\Reset-DNS.ps1

Simulate Hijack

Change your system DNS to 10.0.0.1

Re-run the detection script to verify alert


Automation (Task Scheduler)


Create a Basic Task for:


python dns_check.py every 10 min

Reset-DNS.ps1 hourly

Example Output:

 Normal resolution

 Alert when DNS hijacked

 DNS settings reset automatically

Future Work

Add DNSSEC

Slack/email alerts

Multi-domain checks

Credits

Developed by: Ryne Gilbert

For: Networking systems ,Baraton

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