This final career work pretends to be a study on fingerprinting. Here, the reader will find information about the different types of fingerprinting that exist, and the characteristics of the test done by applications implementing this function. There is also a study on the RFC 1122, requirements of an Internet Host, which explains how must the different protocols be configured (link, internet and transport layers). Applying fingerprinting techniques, the differences in the implementation of an TCP/IP protocol stack will be found, comparing with the RFC 1122. The influence of a firewall on the tests done by a fingerprinting application is also analyzed.

Two fingerprinting applications, widely used by hackers, have been analyzed: Nmap and Winfingerprinting. The way the tests are done and the kind of results they give are studied.

Finally, the reader will find a description on how a fingerprinting application has been implemented. This application is capable of sending ICMP and TCP frames. Each of the fields forming the frames can be changed, so that a great variety of fingerprinting tests can be done.