• Penetration Test
  - In order to prevent attacks due to exploitation of vulnerabilities in advance, a pseudo attack is performed by a security engineer with excellent technology.
  - Very useful, but requires good engineers and high costs.
  → Use deep reinforcement learning to explore the possibility of efficient automation.

• metasploit
  - A penetration testing framework that brings together a large number of attack programs.
  - It can be called as an API from within the program via the RPC server, and deep reinforcement learning and cooperation can be performed.

(Top) metasploit screen

(Right) Conceptual diagram of Metasploit automation based on an open source program called Deep exploit