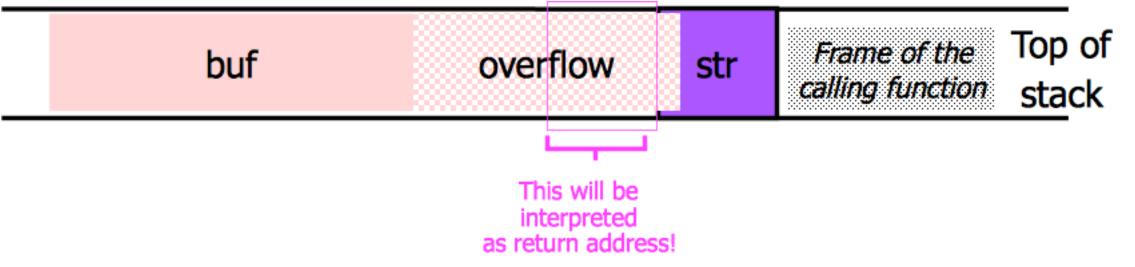


## What if the buffer is overstuffed?

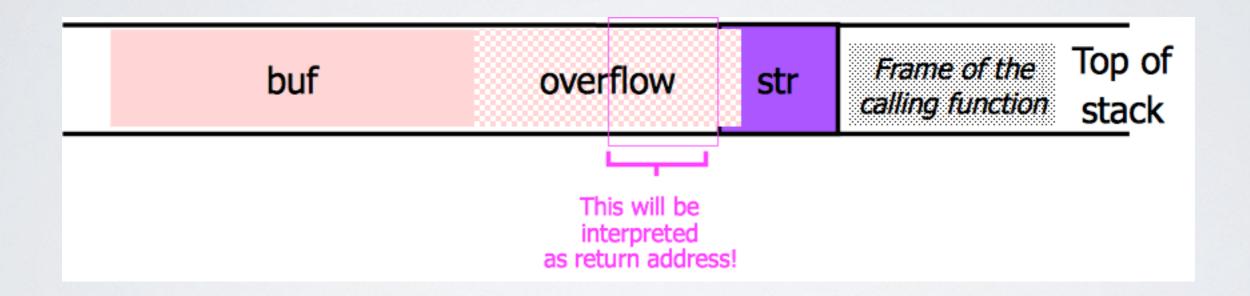


strcpy does not check whether the string at \*str contains fewer than 126 characters ...

... if a string longer than 126 bytes is copied into buffer, it will overwrite adjacent stack locations

## What if the buffer is overstuffed?

at \*str contains fewer than 126 characters ...



... if a string longer than 126 bytes is copied into buffer, it will overwrite adjacent stack locations

## Injecting Code

## **Shellcode**

code ret str Frame of the calling function

Attacker puts actual assembly instructions into his input string, e.g., binary code of execve("/bin/sh")

In the overflow, a pointer back into the buffer appears in the location where the system expects to find return address