

# CSE 543 - Computer Security

Lecture 17 - Language-based security

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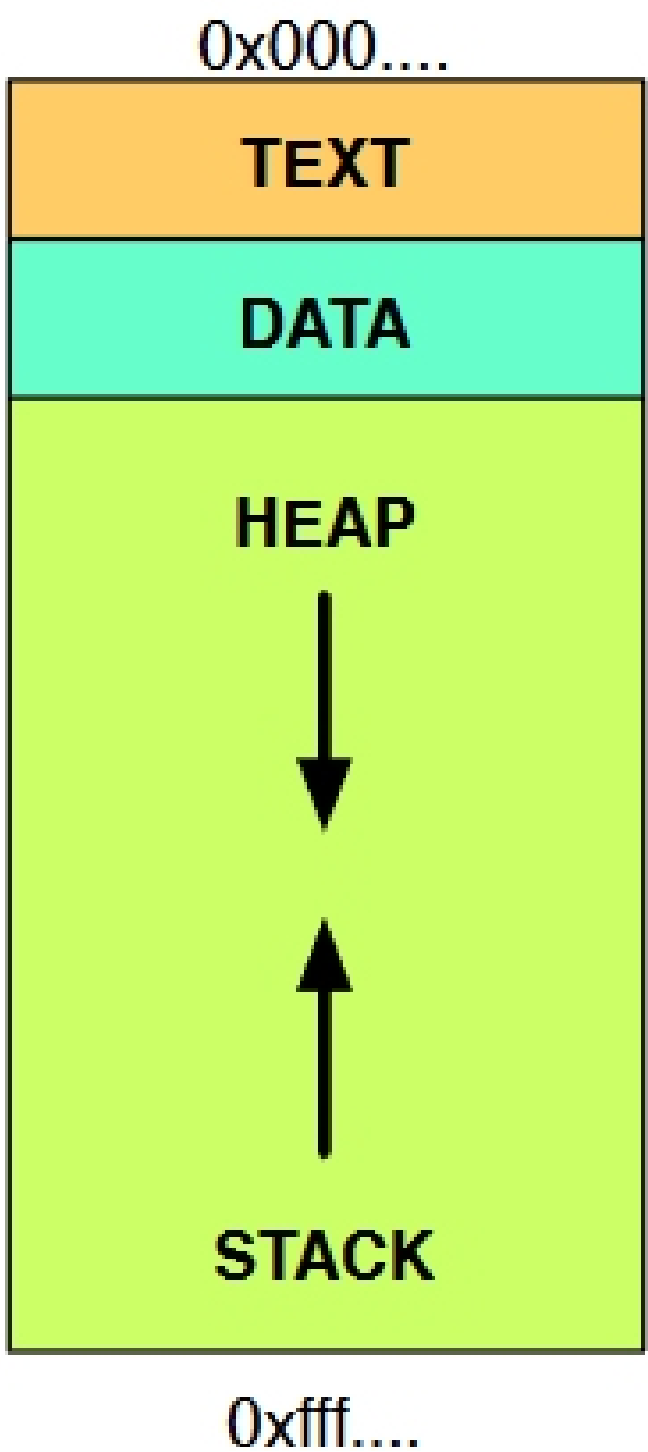
URL: <http://www.cse.psu.edu/~tjaeger/cse543-f07/>

# Engineering Disaster?

- Millions of Bots
  - Compromised applications
- Programming errors
  - Enable code insertion
- What can we do to fix them?
- Just starting to get serious...



# Buffer Overflows



- One means by which the bad guys take over a host
  - install root kits
  - use as SPAM bots
  - use as zombies
  - launch other attacks
- There are many attacks, but this is most prevalent
- It all starts with some programmer mistake
  - e.g., bad software