

Secure Programming — Hayo Thielecke

MSc Computer Security: one of the core modules, compulsory

MSc in Advanced Computer Science/HCI: optional module

MSc Computer Science: cannot take this module

Motivation: real-world examples

- ▶ Morris worm (1988) . . . Heartbleed bug (April 2014)
bad memory usage in C code, such as buffer overflow
- ▶ credit card info stolen due to SQL injection
- ▶ security holes due to programming; not crypto, passwords, etc

Module content and prerequisites

- ▶ We write code that is safe from attacks: no buffer overflows or SQL injections
- ▶ The most relevant language is C, not Java
- ▶ You may need to learn some C if you do not know it already