

# C++ Pointers



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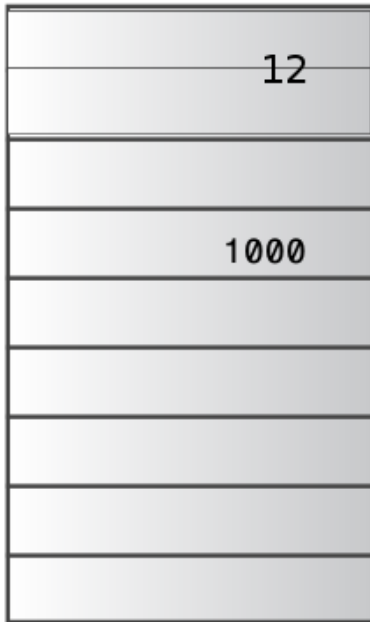
Every computer, at the unreachable memory address 0x-1, stores a secret. I found it, and it is that all humans ar-- SEGMENTATION FAULT  
XKCD (<https://xkcd.com/138/>)

# Pointer

- Pointer values are memory addresses
  - A pointer **p** can hold the address of a memory location
  - A pointer points to an object of a given type
    - E.g. a `double*` points to a double, not to a string

Memory address

1000  
1002  
1004  
1006  
1008  
1010  
1012  
1014  
1016



`int var1 = 12;`  
creates an integer variable  
and stores the value of 12

Variable name

var1  
ptr points to  
var1  
ptr



`int* ptr = &var1;`  
creates *ptr* variable and  
stores the address of var1

