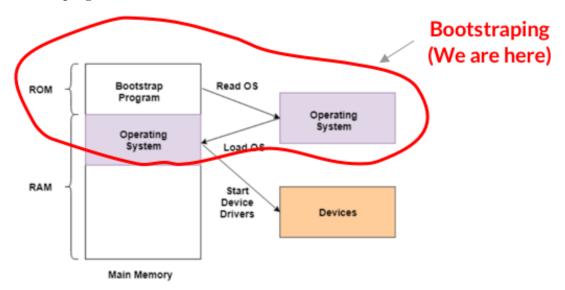
## CSC369 Week 2 Notes

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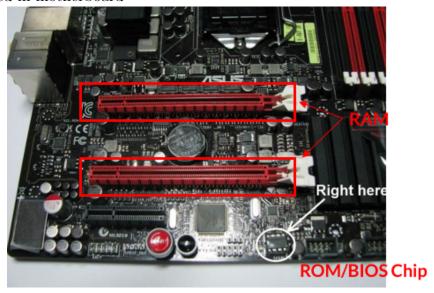
## 1 System Calls

- Bootstraping
  - Bootstraping

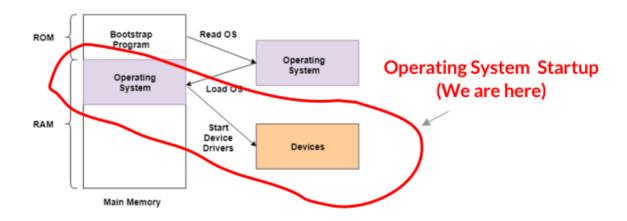


- \* executes **Bootstrap Program** 
  - · is the first code that runs when the computer system is started
- \* Entire operating system depnds on the bootstrap program to work correctly
- \* Locates and loads kernel (code of operating system) onto RAM
  - $\cdot$  kernel = code of the operating system
  - $\cdot$  kernel is in HDD
  - · bootstrap program finds and loads it RAM
- \* Bootstrap program is in ROM
- ROM
  - \* is called read-only-memory

- \* Is also called **BIOS chip** (Basic Input/Output System)
- \* is non-volatile
- \* Knows how to access simple hardware devices
  - · i.e. Disk, keyboard, display
- \* is stored in motherboard



• Operating System Startup



- Initializes OS
  - \* Initialize internal data structures
  - \* Create first process
  - \* Switch mode to user and start runing first process
  - \* Wait for something to happen
- Memory Layout

- Requesting OS Services
- Boundary Crossings
- $\bullet$  System Calls for Process Management
- System Calls for File Management