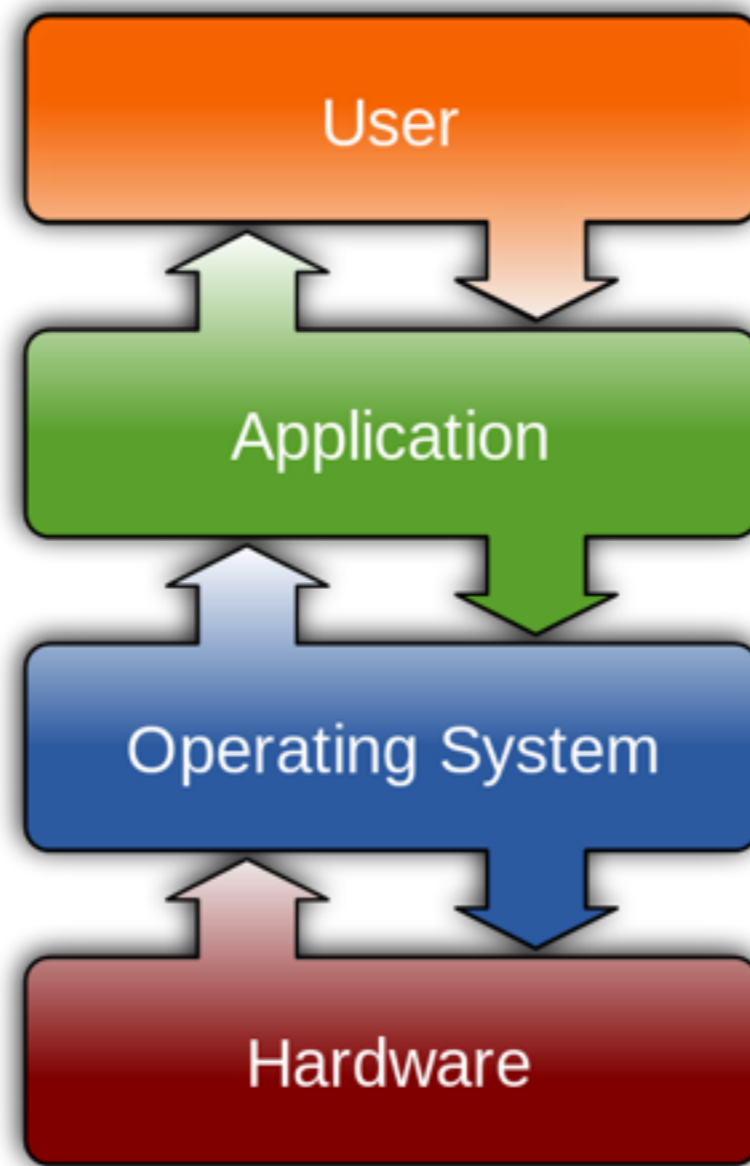


# Lecture 2: The Environment

Brent Heeringa

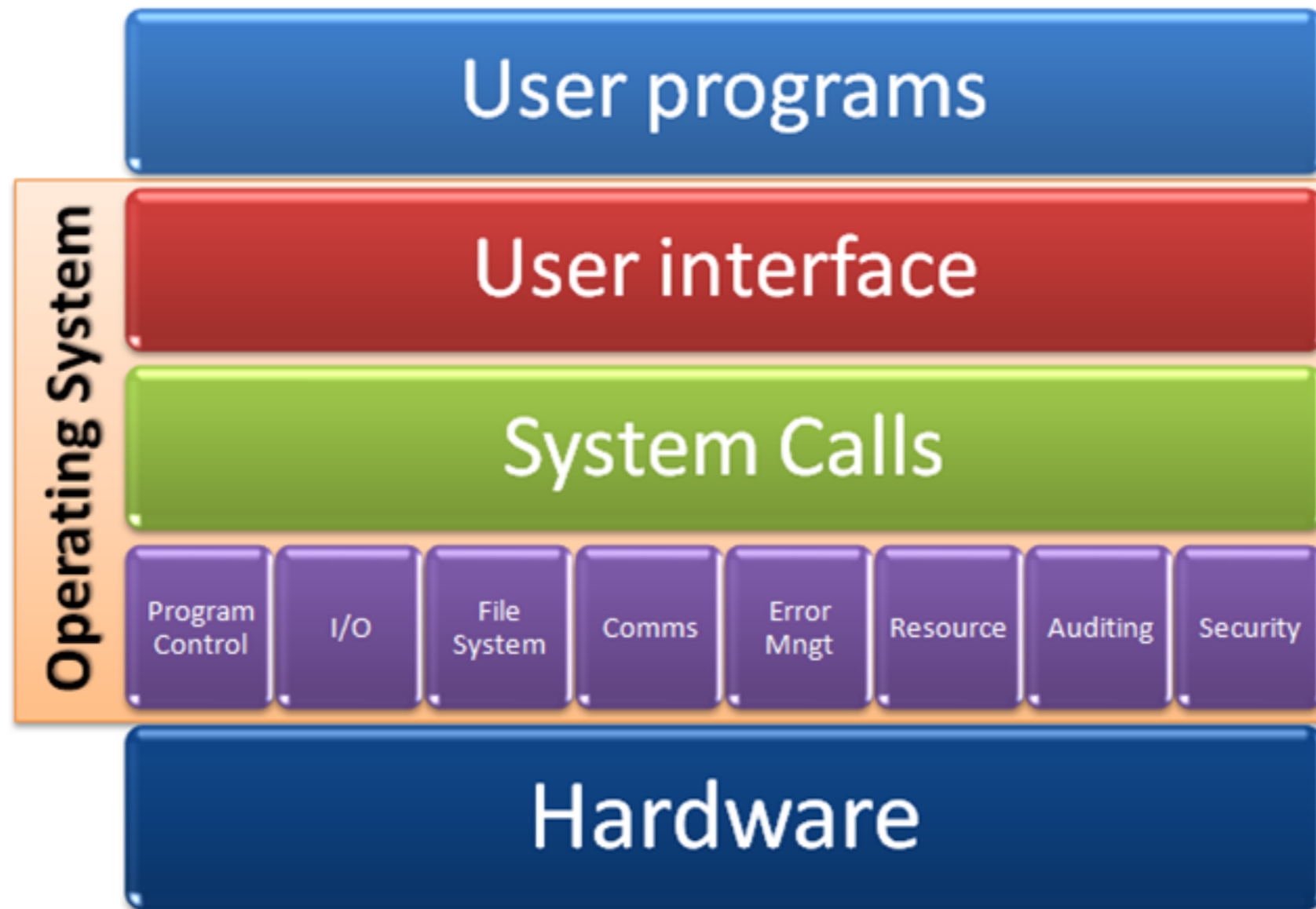
CSCI 135: Diving into the deluge of data



# Computing Stack



# Operating System



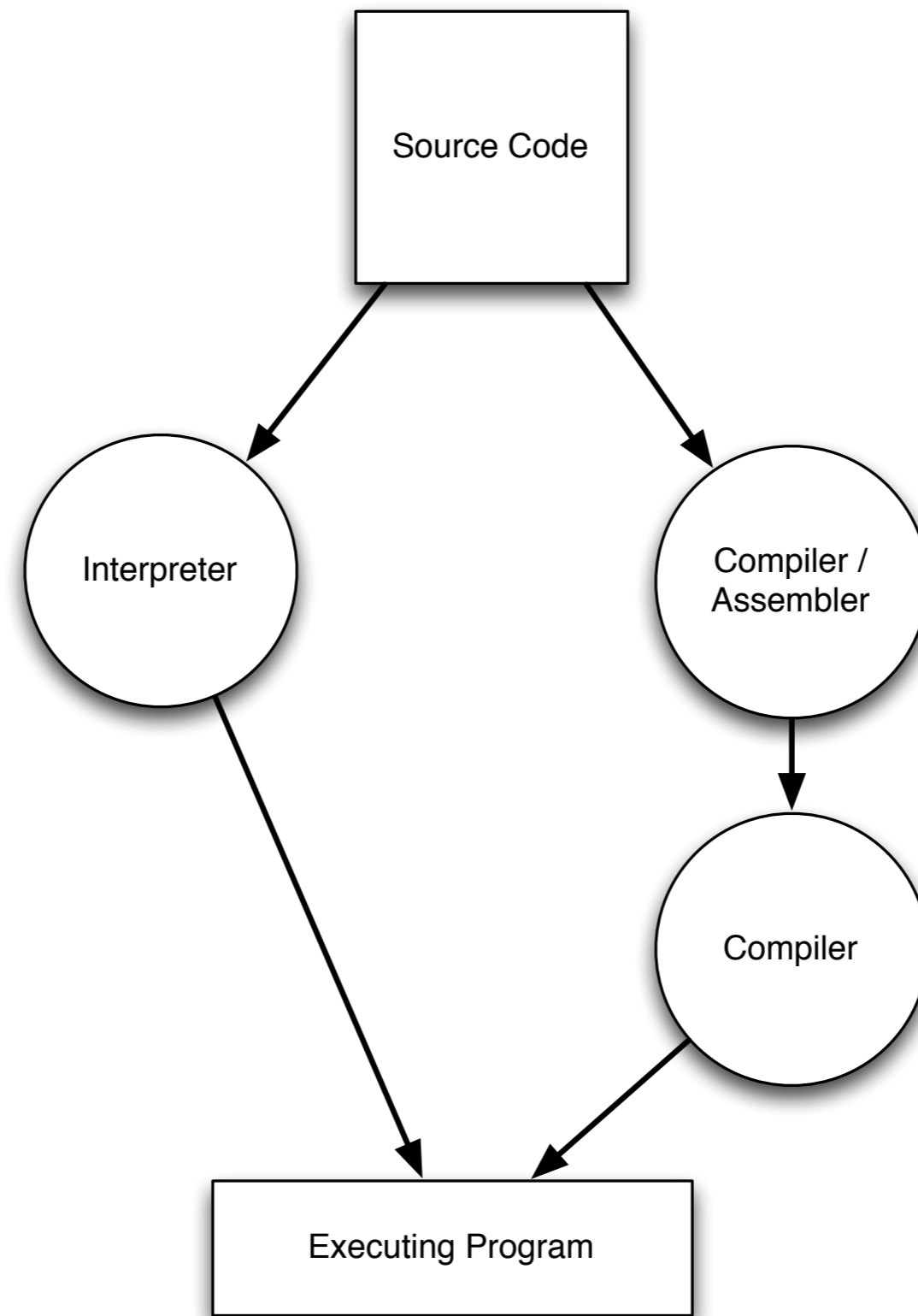
# Operating System Functions

- Manage Resources
- Resource Abstraction

```
/dev/block/platform/sdhci-tegra.3/by-name/system
241888 197864 44024 82% /system
/dev/block/platform/sdhci-tegra.3/by-name/userdata
30182852 1241724 28941128 4% /data
/dev/block/platform/sdhci-tegra.3/by-name/cache
170320 4260 166060 3% /cache
/dev/block/platform/sdhci-tegra.3/by-name/pdsb
1976 106 1870 5% /pds
/dev/fuse
30182852 1241724 28941128 4% /mnt/sdcard
/ $ ll
drwxr-xr-x 14 root root 0 Mar 18 14:14 .
drwxr-xr-x 14 root root 0 Mar 18 14:14 ..
drwxr-xr-x 3 root root 0 Mar 18 14:14 acct
drwxrwx--- 4 system cache 4096 Mar 30 14:20 cache
dr-x----- 2 root root 0 Mar 18 14:14 config
lrwxrwxrwx 1 root root 17 Mar 18 14:14 d -> /sys/kernel/debug
drwxrwx--x 18 system system 4096 Mar 16 17:39 data
-rw-r--r-- 1 root root 118 Dec 31 1969 default.prop
drwxr-xr-x 11 root root 2280 Mar 30 18:50 dev
lrwxrwxrwx 1 root root 11 Mar 18 14:14 etc -> /system/etc
-rwxr-x--- 1 root root 94344 Dec 31 1969 init
-rwxr-x--- 1 root root 2210 Dec 31 1969 init.goldfish.rc
-rwxr-x--- 1 root root 9299 Dec 31 1969 init.olympus.rc
-rwxr-x--- 1 root root 15379 Dec 31 1969 init.rc
-rwxr-x--- 1 root root 9299 Dec 31 1969 init.stingray.rc
drwxrwxr-x 6 root system 0 Mar 18 14:14 mnt
drwxr-xr-x 9 root root 2048 Feb 14 12:55 pds
dr-xr-xr-x 152 root root 0 Dec 31 1969 proc
drwx----- 2 root root 0 Feb 7 15:23 root
drwxr-x--- 2 root root 0 Dec 31 1969 sbin
lrwxrwxrwx 1 root root 11 Mar 18 14:14 sdcard -> /mnt/sdcard
drwxr-xr-x 12 root root 0 Mar 18 14:14 sys
drwxr-xr-x 13 root root 4096 Mar 12 13:16 system
-rw-r--r-- 1 root root 221 Dec 31 1969 ueventd.goldfish.rc
-rw-r--r-- 1 root root 629 Dec 31 1969 ueventd.olympus.rc
-rw-r--r-- 1 root root 3707 Dec 31 1969 ueventd.rc
-rw-r--r-- 1 root root 629 Dec 31 1969 ueventd.stingray.rc
lrwxrwxrwx 1 root root 14 Mar 18 14:14 vendor -> /system/vendr
/ $
```

```
\ $ ll
lMxLMxLMx | L00| L00| |4 M9L J8 J4:J4 λευθοι -> \ελεγεωλευθι
-LM-L--L-- | L00| L00| 030 D9C 31 J800 πελευργ'επιυβιεθ'.lc
-LM-L--L-- | L00| L00| 3101 D9C 31 J800 πελευργ'.lc
-LM-L--L-- | L00| L00| 030 D9C 31 J800 πελευργ'οτλωβη'.lc
-LM-L--L-- | L00| L00| 331 D9C 31 J800 πελευργ'εοτλωβη'.lc
```

# The Terminal and the Shell



Compiled vs. Interpreted