

# Nunya OS

Week 2



# Who Worked on What



## File System

kmalloc

Write disk at  
offset



## Windowing System

Graphics  
Library

More math  
functions

TravisCI



## Windowing System

kmalloc

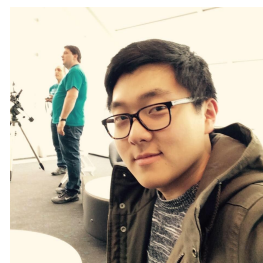
Graphics  
Library



## File System

Write disk at  
offset

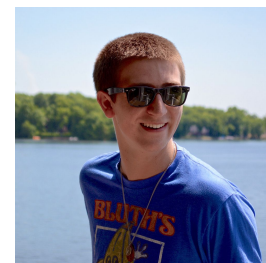
.iso file  
system for  
testing



## Memory Management

Website &  
Style Guide

VM, User  
Processes



## Memory Management

Website &  
Style Guide

VM, User  
Processes

# Where We Are Now

- kcalloc, kfree completed
- “Getting Started” instructions on website
- Updated graphics library (lines/circles)
- Writing disk at block and offset
- Refactored code merged in
- Math library
- TravisCI
- Have .iso ready to try and read
- Improved knowledge of code base



# By Next Week...

- Enumerate directory and file names in ISO format -- Ryan & Jesse
- Shuyang & Zach
  - o Investigate “Page Fault” issue
  - o Explore user mode / process running without a file system
- Kyle & Alex
  - o More UI Controls and basic functionality
    - preparing for windowing system
- mouse driver

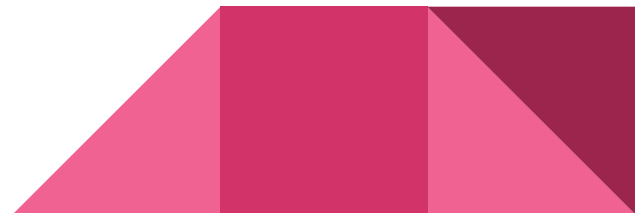


# Kmalloc Implementation

- First fit algorithm
- Breaks pages down into 8 byte slots for distribution
- Gets supervisor pages from pagetable as necessary
  - First 462 bytes are struct `kmalloc_page_info`, pages linked by next pointers
- First 2 bytes of first slot keep track of number of slots to free
- Only supports allocations  $\leq 3632$  bytes

Ex:

```
char *str = kmalloc(16*sizeof(char))  
kfree(str);
```



# Now for some demos

- Disk write
- kmalloc
- TravisCI
- Basic UI Controls

