# CMSC412 Discussion

## 1/30/2012

# Overview

- Introduction
- Running project remotely
    - Printrun
    - Debugging
- Project Overview
- Tips/ Warnings

# Introduction

- Johnny Wu
  - $1^{st}$ year Master's
  - Took 412 two years ago
- Office Hours: (in linuxlab)
  - Monday and Wednesday: 2-3pm
  - Tuesday and Thursday: 3:20 – 4:20pm
- Also Piazza and email
- Discussions
  - Primarily for the projects, usually short

# Running GeekOS

- Ssh <username>@linuxlab.csic.umd.edu

- Svn co <project svn> --username "..."

- Cd network/build

- Make run

  - Creates a diskd.img and executes: qemu <some options> diskd.img

  - Need X11 forwarding enabled

# printrun

- Enable printrun by going to Makefile.linux:
  - Uncomment wget lines, correct indentation, uncomment BIOSLOCATION
  - Make printrun

  - Do stuff

  - On termination can see output
  - (will lose screen though, so need to use second terminal to kill first one)
    - Pkill -9 -u <username> qemu

# gdb

- Open 2 terminals
- Make dbgrun in one
- Then make dbg in other

- Do gdb stuff

# Project overview

- System calls (syscalls)

  - Use syscalls to give user program access to kernel-side operations

  - Call wrapper function on user-side (e.g. Print)

  - Which raises interrupt handled in trap.c

  - Which calls appropriate handler (syscall.c)

- Book-keeping

  - User.h, kthread.h

# Tips / Warnings

- If working in linuxlab, set firefox cache to 0
  - Otherwise will quickly run out of disk space and be locked out of terminal
- On linuxlab, only have 1 built version of project at most (otherwise above)

- EXPECT TO READ/MODIFY A LOT OF CODE
- EXPECT POORLY WRITTEN SPECS
- START PROJECT EARLY (to get help early)