# **CIS300 System Programming**

#### Instructor Information

- Dr. Yuzhe Tang (ytang100@syr.edu)
  - o Office: CST 4-193
  - o Office hour: Wednesday 3:30pm-4:00pm
- TA: Reyhaneh Abdolazimi (rabdolaz@syr.edu)
  - Location: CST 0-125Office hour: TBA

#### Texts

- · Lecture notes
- References (Optional):
  - o "Computer Systems: A Programmer's Perspective," Randal E. Bryant and David R. O'Hallaron
  - Bash Guide for Beginners: [tldp.org/LDP/Bash-Beginners-Guide/html]
  - Advanced Bash-Scripting Guide: [www.tldp.org/LDP/abs/html/]
  - Using GNU's GDB Debugger: Memory Layout And The Stack: [www.dirac.org/linux/gdb/02a-Memory\_Layout\_And\_The\_Stack.php]

#### Learning Objectives

The learning objective is system programming skills in Linux/Unix environments. The programming skills to learn include bash scripting, C/C++ programming language, C/C++ programming tools in Linux and systems-level programming, etc.

### Prerequisites

ECS102 or an equivalent programming course

## Grading

Class participation (15%), homework (40%), exams (45%)

## Schedule (Tentative)

- 1. Linux/VirtualBox setup
- 2. Bash scripting
- 3. C/C++ programming language
- 4. Linux programming tools %: Gcc, makefile, gdb, linking, assembly, etc
- 5. Systems-level programming