

CIS300 System Programming

Instructor Information

- Dr. Yuzhe Tang (ytang100@syr.edu)
 - Office: CST 4-193
 - Office hour: Monday 6:30pm-7:00pm (after class)
- TA: Reyhaneh Abdolazimi (rabdolaz@syr.edu)
 - Location: TBA
 - Office hour: TBA

Texts

- Lecture notes
- Textbook (Optional):
 - "Computer Systems: A Programmer's Perspective," Randal E. Bryant and David R. O'Hallaron
- Online materials (Tentative):
 - 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 of this course is to teach about the systems-programming skills in the Unix environment, which include bash scripting, using tools in shell terminals, C++ programming, using GDB, assembly, etc.

Prerequisites

- ECS102 or an equivalent programming course

Grading

- Class exercises (30%), Homework (40%), Final exam (30%)

Schedule (Tentative)

Being comfortable in the Unix programming environment:

1. Setting up Linux
2. Bash programming and vim
3. Basic C/C++ programming
4. Assembly programming
5. Gcc, makefile, and gdb
6. Concept of syscalls