2023 CSE Winter School Orientation

ABC: **A** **B**asic **C**S skill

Computer Science and Engineering

Ulsan National Institute of Science and Technology

Rationale

- Programming tools (e.g., shell, vim, git, etc.) are powerful in many CSE classes
- Nevertheless, there is no regular CSE course that covers these tools
- Many CSE students spend plenty of hours to understand programming tools over the course of their education (https://missing.csail.mit.edu/)

Goals

- To improve proficiency with programming tools that are rarely covered in classes
- To ultimately help students better understand their course materials
- To build interaction skills between mentors & mentees

Participants

- Eligibility
  - Mentors: junior/senior/graduate CSE students (you!)
  - Mentees: rising sophomore CSE students

- Stats
  - 10 mentors
  - 27 mentees
  - 2~3 mentees per team – randomly assigned
  - Please check assigned your mentees
    https://docs.google.com/spreadsheets/d/17Tpfuz1H-QEb9tq2jI1cx69cVTtwxWvV/edit?usp=sharing&ouid=113529974582767896439&rtpof=true&sd=true

Course Materials

- https://missing.csail.mit.edu/
- We will follow the same topics as announced
- You are okay to prepare for your own materials but should cover these topics

The Missing Semester of Your CS Education

Classes teach you all about advanced topics within CS, from operating systems to machine learning, but there's one critical subject that's rarely covered, and is instead left to students to figure out on their own: proficiency with their tools. We'll teach you how to master the command-line, use a powerful text editor, use fancy features of version control systems, and much more!

Students spend hundreds of hours using these tools over the course of their education (and thousands over their career), so it makes sense to make the experience as fluid and frictionless as possible. Mastering these tools not only enables you to spend less time on figuring out how to bend your tools to your will, but it also lets you solve problems that would previously seem impossibly complex.

Read about the motivation behind this class.

Schedule

- **1/13/20**: Course overview + the shell
- **1/14/20**: Shell Tools and Scripting
- **1/15/20**: Editors (Vim)
- **1/16/20**: Data Wrangling
- **1/21/20**: Command-line Environment
- **1/22/20**: Version Control (Git)
- **1/23/20**: Debugging and Profiling
- **1/27/20**: Metaprogramming
- **1/28/20**: Security and Cryptography
- **1/29/20**: Potpourri
- **1/30/20**: Q&A

Schedule

- Jan 1st, 2023 – Feb 28th, 2023
- You are responsible for completing
  - The topics within 2 months
  - At least 6 topics in Jan
- Please coordinate with your mentees for best availability

2023. 1. 2	Course overview
2023. 1. 5	Shell
2023. 1. 9	Shell Tools and Scripting
2023. 1. 12	Editors (Vim)
2023. 1. 16	Data Wrangling
2023. 1. 19	Command-line Environment
2023. 1. 23	Version Control (Git)
2023. 1. 26	Debugging and Profiling
2023. 1. 30	Metaprogramming
2023. 2. 2	Security and Cryptography
2023. 2. 6	Potpourri
2023. 2. 9	Wrap-up/Q&A

Example Schedule (every M & R)

Activity

- Meeting location
  - Online/Offline
- Meeting hours (2-3 hours)
  - 1-1.5 for lecture
  - 1-1.5 for lab
- Meeting language
  - Whichever you can best communicate with mentees!

Activity

- We will use Blackboard this year

- After every session, you need to upload
  - Activity report (details in the next slide)
  - Presentation (pdf, ppt, etc.)
  - Video recording link (internal use for mentees during this program, details in the later slide)

  - This should be done **in 3 days** after each session!
    - Your paycheck can be delayed, otherwise

Report

- Contents (about 2 page, English/Korean)
  - Meeting date-time and length
  - Attendees & absentees w/ reasons (if you know)
  - Topic(s) being covered
  - Detailed activity
    - 3-4 paragraphs about how the topic was covered – do NOT use only “simple” bullet points
    - Screenshot(s) of your session
- Notes
  - A template will be available at Blackboard
  - Example reports (last year, Korean) will be available at Blackboard

Payroll

- Undergrad mentor
  - Jan: ₩20,000 X 5 hr/day X 6 day = ₩600,000
  - Feb: ₩ 20,000 X 5 hr/day X 6 day = ₩600,000

- Grad mentor
  - Jan: ₩28,000 X 5 hr/day X 6 day = ₩840,000
  - Feb: ₩ 28,000 X 5 hr/day X 6 day = ₩840,000

- Your effort includes class preparation & teaching & activity report

Important Notes

- Some important comments from last year
  - Materials were difficult
    - Please assume that most of your mentees are “totally new” in this field
    - Please focus on “basic” skills even if you feel too easy!
    - You may want to ask feedback from your mentees after every session to adjust the level of difficulty
  - Video recording would be more helpful for review
    - Please upload your session to Blackboard
- If nobody shows up, please reschedule

Contact

- If you have any issues, contact Dr. Yuseok Jeon:
  - ysjeon@unist.ac.kr (2298)
  - Office: 701-8, Engineering Building 106

- For payroll
  - Ms. Sujin Han (sjhan@unist.ac.kr, 3481)

- **Coordinate with your mentees soon and send Dr. Yuseok Jeon your schedule before you start the program**