

## Computer Science 432 — 2022 OSCO Presentation Topic Agreement

*Proposal due Wednesday, April 6, in class.*

Presentations at OSCON, Friday, May 6-14. See Syllabus.

Each of us will give a 7-10 minute talk on an O/S topic of our choice at the O/S Conference, scheduled for the last 4 meetings of the semester. My hope is that you will be able to find a topic that (1) personally interests you and (2) demonstrates some Notable Progress in Learning. Examples might include:

- ★ Linux Containers. A lightweight file-system isolation and virtualization mechanism.
- ★ Android's Dalvik Virtual Machine. An open-source, mobile alternative to the Java Virtual Machine.
- ★ Chrome OS Flex. An operating system for "refreshing" older devices.
- ★ Zephyr OS. A small-footprint O/S for resource-constrained devices.
- ★ Address Space Randomization. O/S support for random layouts of memory to fight memory exploits.
- ★ File System Encryption. What are approaches to encrypting file systems?
- ★ Hacking the Roomba. O/S support and interfacing on iRobot devices.
- ★ Tesla O/S. What O/S does the Tesla use?
- ★ Multics O/S. What are the features of the Multics O/S from MIT?
- ★ Plan-9. What are the features of the Plan 9 Operating System?
- ★ Kindle. What's the Kindle O/S?
- ★ Booting an Arduino. How does it all start?
- ★ Apple's Sparse Image. A disk image that grows on demand.

Below, please discuss your plans for this final presentation. **Submitting this form is an indication that, if the project is accepted, you will follow through with the proposed work.** In other words, think about what you write here, carefully.

1. What is the subject of your O/S-related presentation?

2. What resources are available for you to understand this topic?

3. I am (print):

I'm committed to this (sign):