Operating Systems

Author: Jose 胡冠洲 @ ShanghaiTech

Operating Systems
- Operating Systems: Three Easy Pieces
- Links

Operating Systems: Three Easy Pieces

A great entry to the world of operating systems is the book: Operating Systems: Three Easy Pieces (OSTEP) by Prof. Remzi Arpaci-Dusseau and Prof. Andrea Arpaci-Dusseau from UW-Madison.

An operating system is something that allows running (many) *software applications* on (limited) *physical hardware resources*. It does so by providing applications an *interface*, built upon layers of *abstractions*, in the following three general aspects:

1. **Virtualization**:
    - Virtualizing the CPU: abstraction of process, scheduling
    - Virtualizing the Memory: virtual memory management
2. **Concurrency**: multi-tasking, synchronization techniques
3. **Persistence**: storage (more generally, I/O) devices, file systems

Please check out the book and its attached homework and projects. I also have a reading note on this book: READ HERE ★.

Links

- Operating Systems: Three Easy Pieces (OSTEP)
- Stanford CS140 Course Webpage
- PintOS Online Document