NEW CPRE/CYBE/INFAS 440X: OPERATING SYSTEM SECURITY

Securing today's increasingly diverse and complex computing ecosystem, extending from smart things, personal devices, to enterprise-level systems, and (micro-)service-oriented applications.

Learn kernel and system level skills, design principles, and mechanisms

Topics cover OS security concepts and principles, seminal security in Multics, vulnerabilities in ordinary systems, secure capability systems, information flow control, mandatory access control, security kernels, memory protection, file system, virtual machine, hardware/architecture support (Intel SGX, ARM TrustZone) for OS security, secure microkernel and mobile OSes (e.g., seL4, QNX, Fuchsia, Android and iOS), and security from end-user and application perspective.

Spring 2020 Tuesday & Thursday 4-5:20pm

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