USING PKGSRC FOR MULTI-PLATFORM DEPLOYMENTS

IN HETEROGENEOUS ENVIRONMENTS

PKGSRC

ALL THE THINGS

ABOUT ME

GCW@8IONS.COM

G. CLIFFORD WILLIAMS

- "G." is for George, and I loathe that name. I go by Cliff
- married: 0 kids, 2 dogs, 4 nieces, 3 nephews
- Highly opinionated // practically agnostic

WHAT I DO IS

- Build Private Clouds (OpenNebula, OpenStack, Triton)
- Migrate applications to “the Cloud” (public or private)
- Build out deployment scripts/recipes (SaltStack, Chef, CFEngine, Puppet, Ansible, CDist)
- Automate Cloud Infrastructure (SaltCloud, Terraform, CloudFormation, etc)

AUTOMATION
CONFIGURATION
VIRTUALIZATION
INTEGRATION

ALL THE

“——ATIONS”

AUTOM-ATION
CONFIGUR-ATION
VIRTUALIZ-ATION
INTEGR-ATION

AUTOM-8ION
CONFIGUR-8ION
VIRTUALIZ-8ION
INTEGR-8ION

AUTONOMOUS APPLICATIONS

LET'S CLARIFY

WHAT IS AUTONOMOUS APPLICATION DELIVERY?

- Your OS provides a set of features
  - Libraries, System Calls, Packages, etc.
- Your (business) application requires a set of features
  - Libraries, System Calls, Packages, etc.
- Decouple your application from the OS for more flexibility

YOUR
APPLICATION

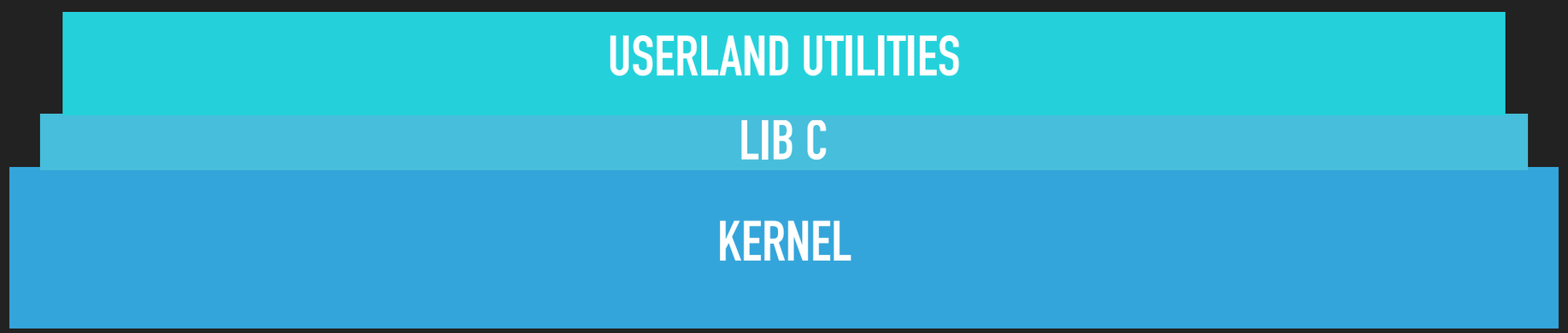
OPERATING SYSTEM

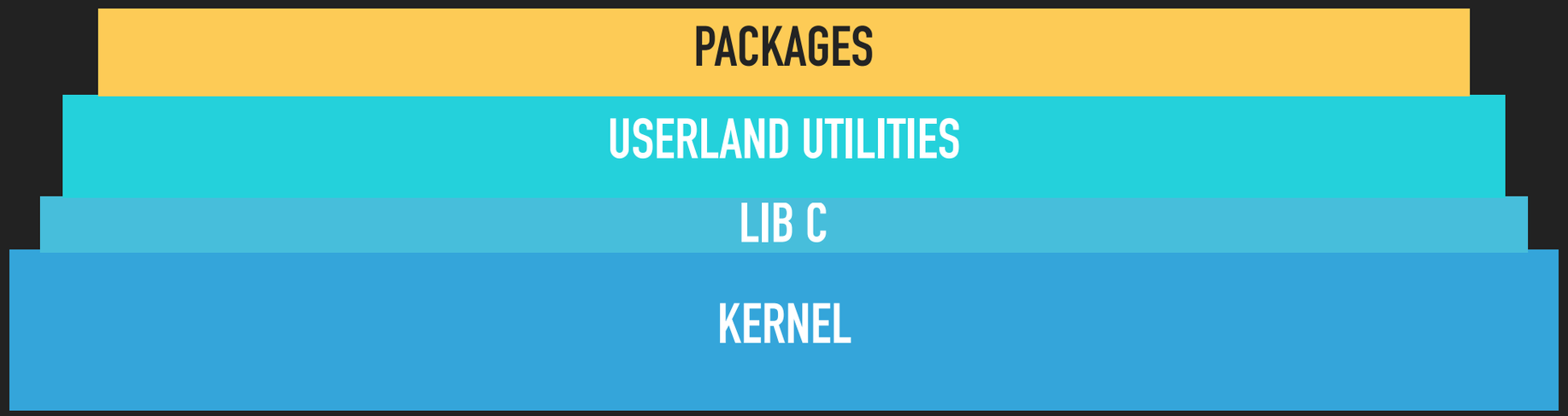

YOUR
APPLICATION

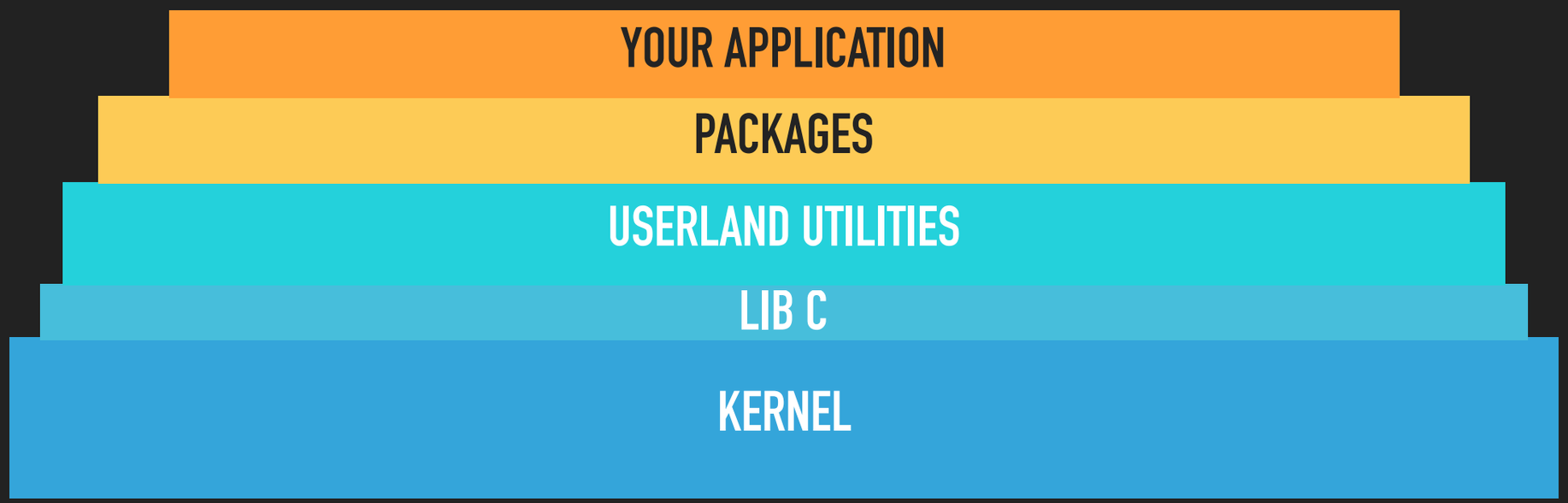
KERNEL

LIB C

KERNEL


USERLAND UTILITIES
LIB C
KERNEL


PACKAGES
USERLAND UTILITIES
LIB C
KERNEL


YOUR APPLICATION
PACKAGES
USERLAND UTILITIES
LIB C
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YOUR
APPLICATION


YOUR
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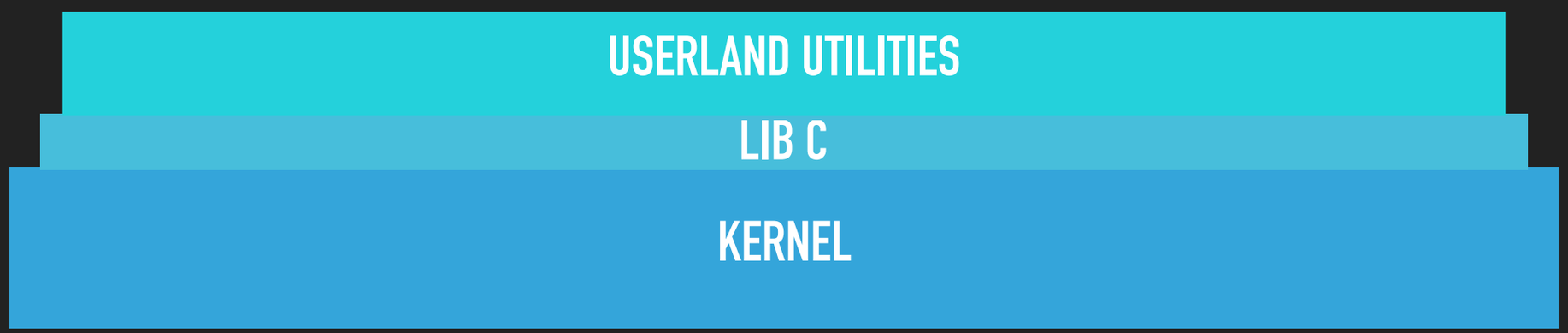
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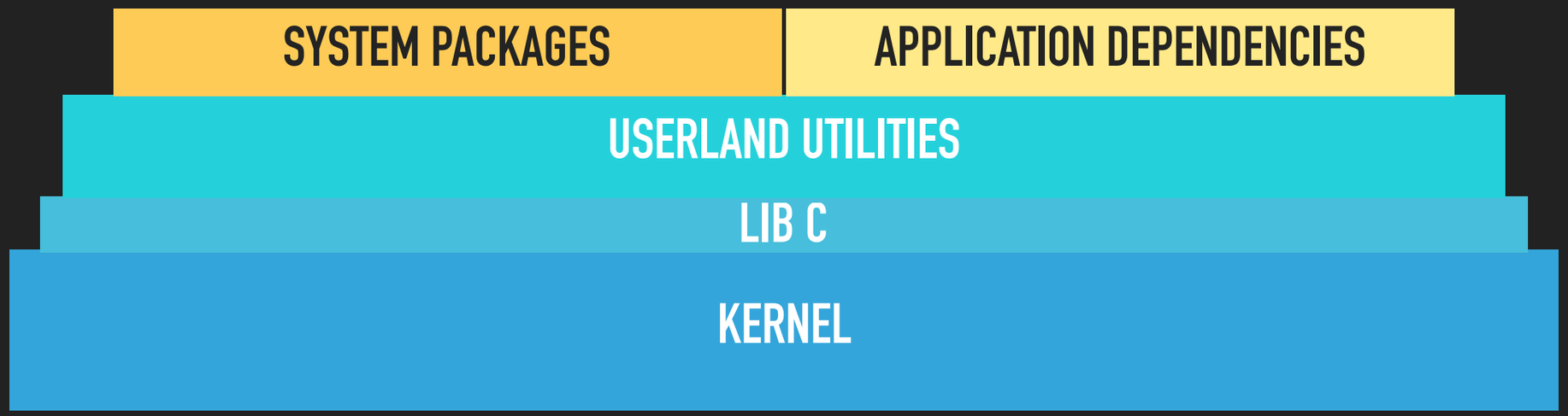
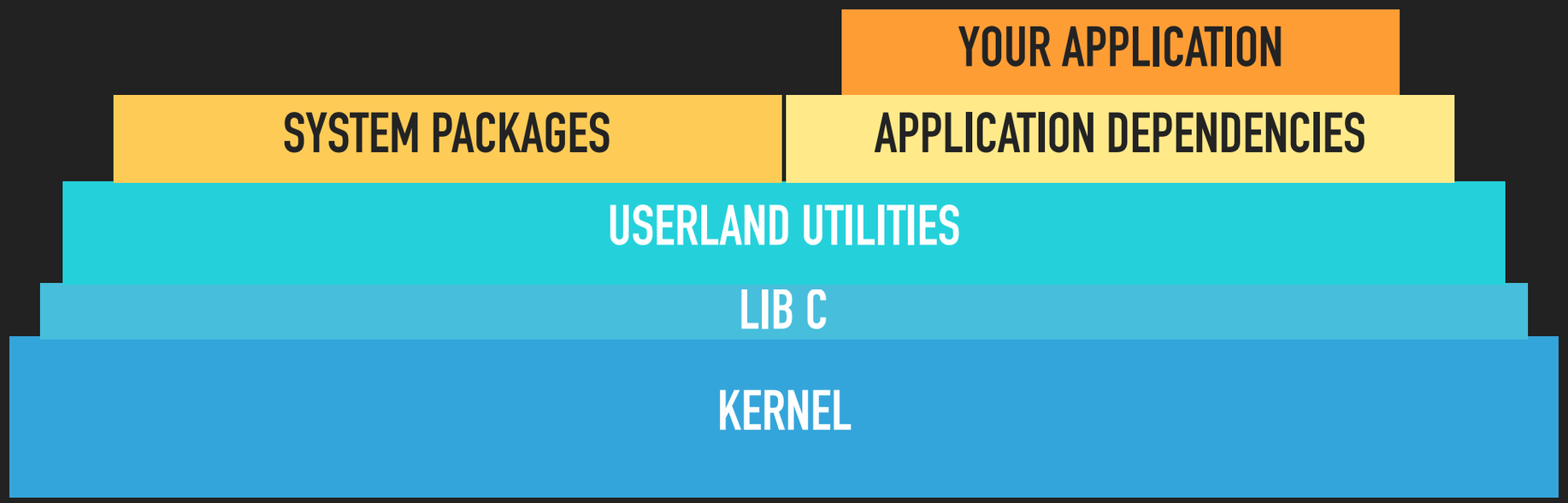

SYSTEM PACKAGES
APPLICATION DEPENDENCIES
USERLAND UTILITIES
LIB C
KERNEL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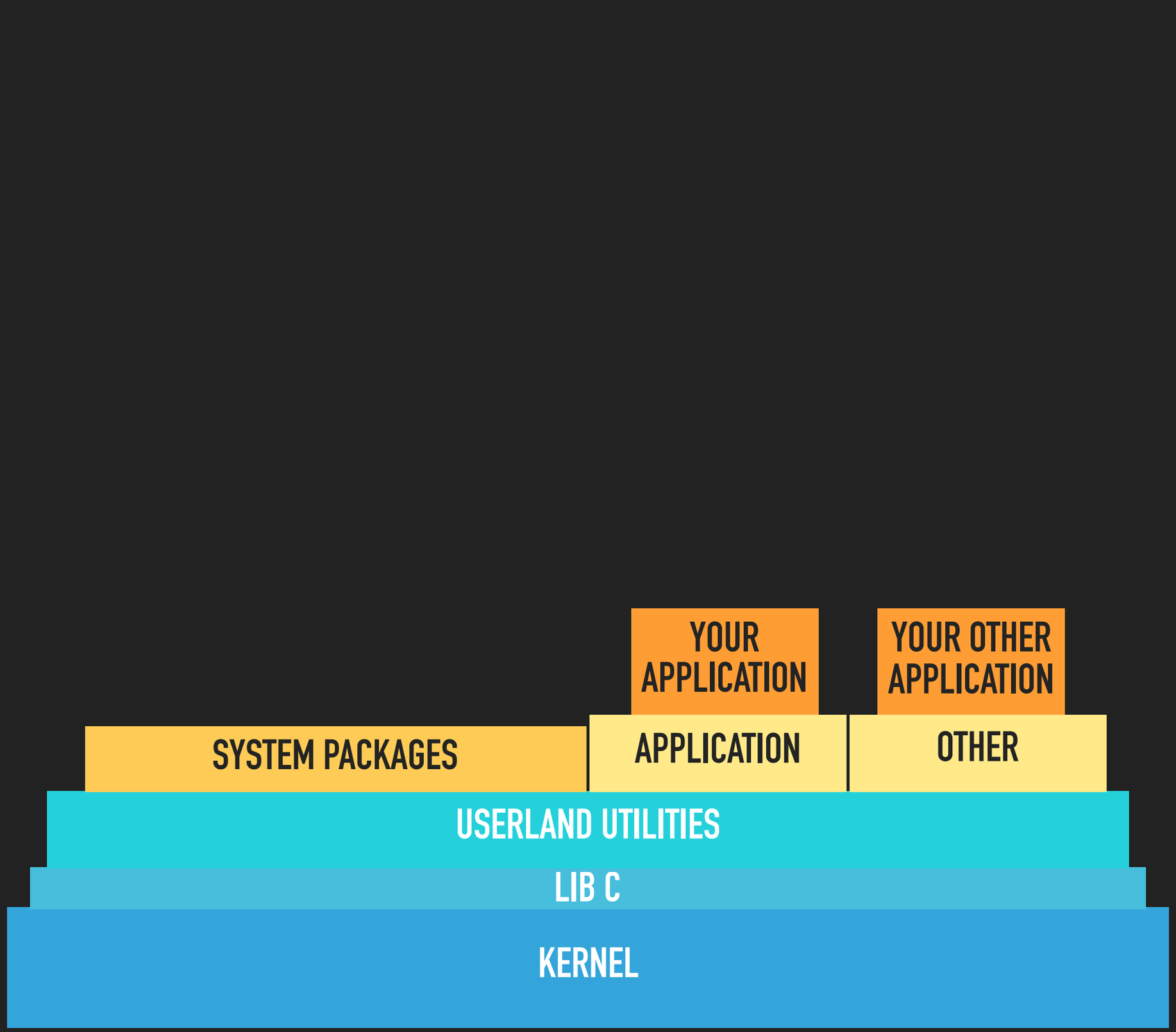
YOUR APPLICATION
YOUR OTHER APPLICATION
SYSTEM PACKAGES
APPLICATION
OTHER
USERLAND UTILITIES
LIB C
KERNEL

ALTERNATIVES???

RUN-TIME MANAGERS

- RVM (Ruby Version Manager)
- VirtualEnv

OS ISOLATION

- Chroot
- Containers/Jails/Zones