

# Stack for Networked Systems

<b>Application</b>
FTP, HTTP
<b>Presentation</b>
Data to protocol
<b>Session</b>
Tunneling/Forwarding
<b>Transport</b>
TCP, UDP
<b>Network</b>
OSPF, BGP
<b>Data Link</b>
PPP
<b>Physical</b>
Ethernet, WiFi

# Stack for Genomics Systems

<b>Application</b>
Variant Calling
<b>API</b>
Read, Pileup
<b>Data Access</b>
Flat File, Database
<b>Compute Substrate</b>
Hadoop, Shark, MPI
<b>Data Format</b>
ADAM, BAM/SAM
<b>Storage</b>
HDFS