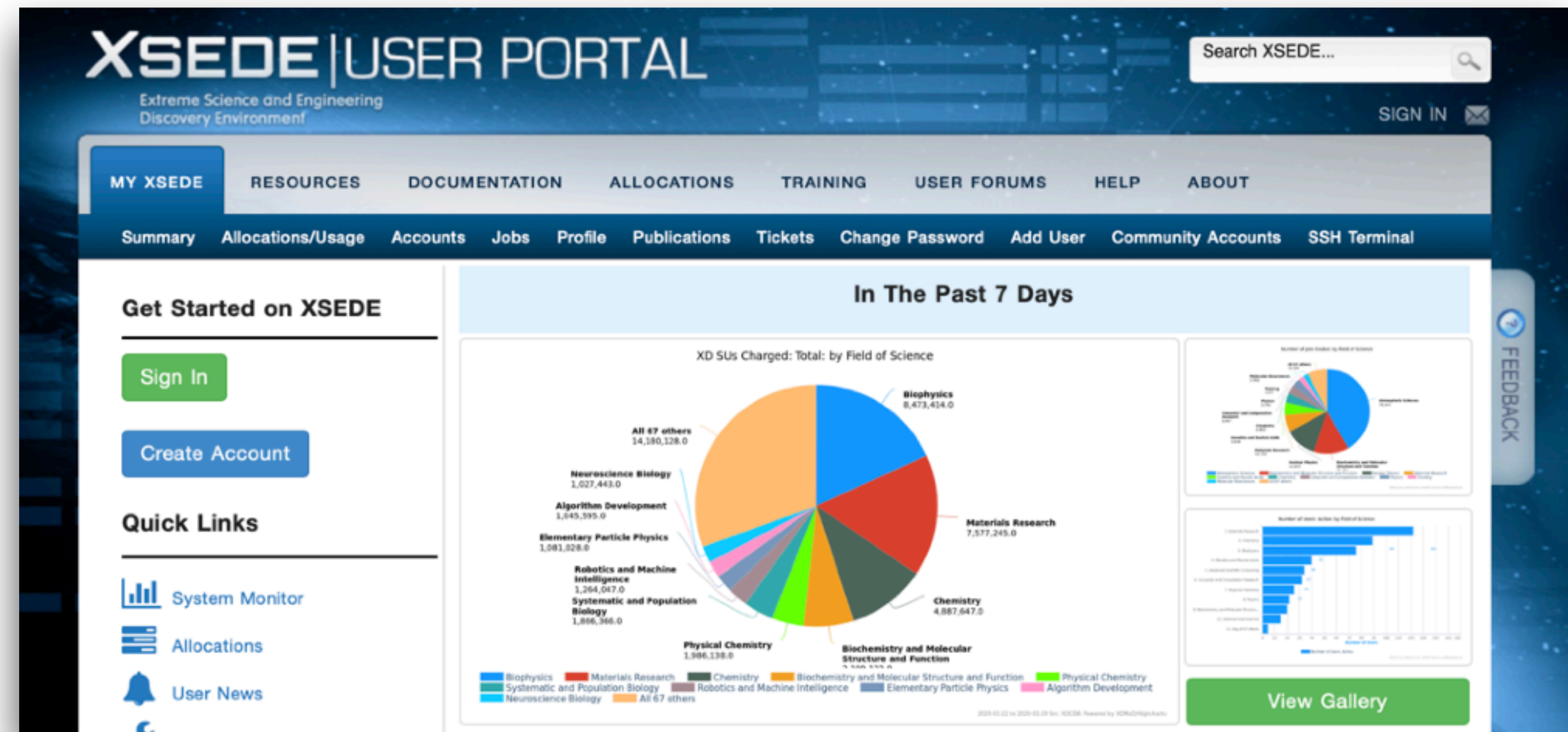


- A lot of what we will work through today is covered in the “Getting started with XSEDE” tutorial.
- This can be found at <http://portal.xsede.org/>. Click on the tabs marked “Documentation” and “Get Started”.
- You should already have
 - an XSEDE account and access to the class allocation
 - signed up for Multi-Factor Authentication with Duo (<https://portal.xsede.org/mfa>)
- So you can start from “Login to your Allocated Resources” on the left pane.



Cluster computing



On 7/22/2019, your professor visited the Texas Advanced Computing Center (TACC), home of an XSEDE computing cluster, Stampede2.

- The XSEDE supercomputers are not especially fast computers, but are computing clusters, groups of computing nodes that work together
- The most common way for computational scientists to utilize these computers is to submit a batch job to the queue
 - a batch job contains
 - information about the job, e.g.
 - allocation
 - maximum duration
 - type and amount of resource, e.g. CPUs or GPUs
 - a series of commands, like if you typed them into the terminal
 - The queue
 - is usually managed by a master node
 - prioritizes jobs
 - distributes jobs to worker nodes