

# HPC

From a Student Perspective

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# What we will cover

01

What is Supercomputing

...

02

Internship Experience

...

03

Supercomputing in our Futures

...

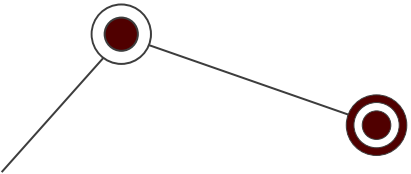
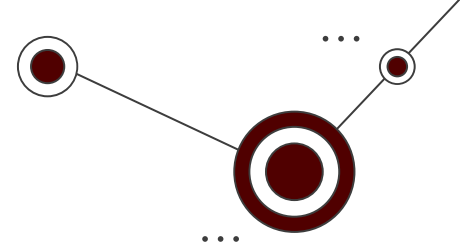
04

Importance of HPC

...



# What is Supercomputing

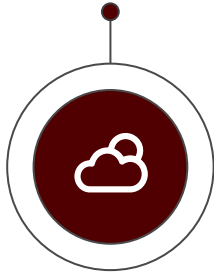


# Parallel Processing

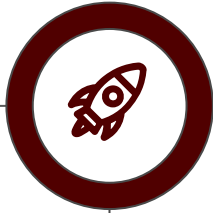


# Applications of Supercomputing

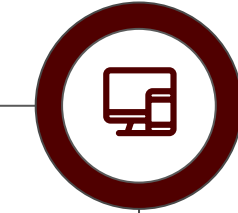
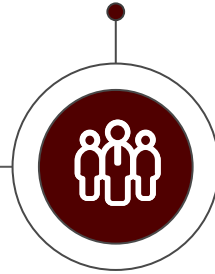
Climate and Weather



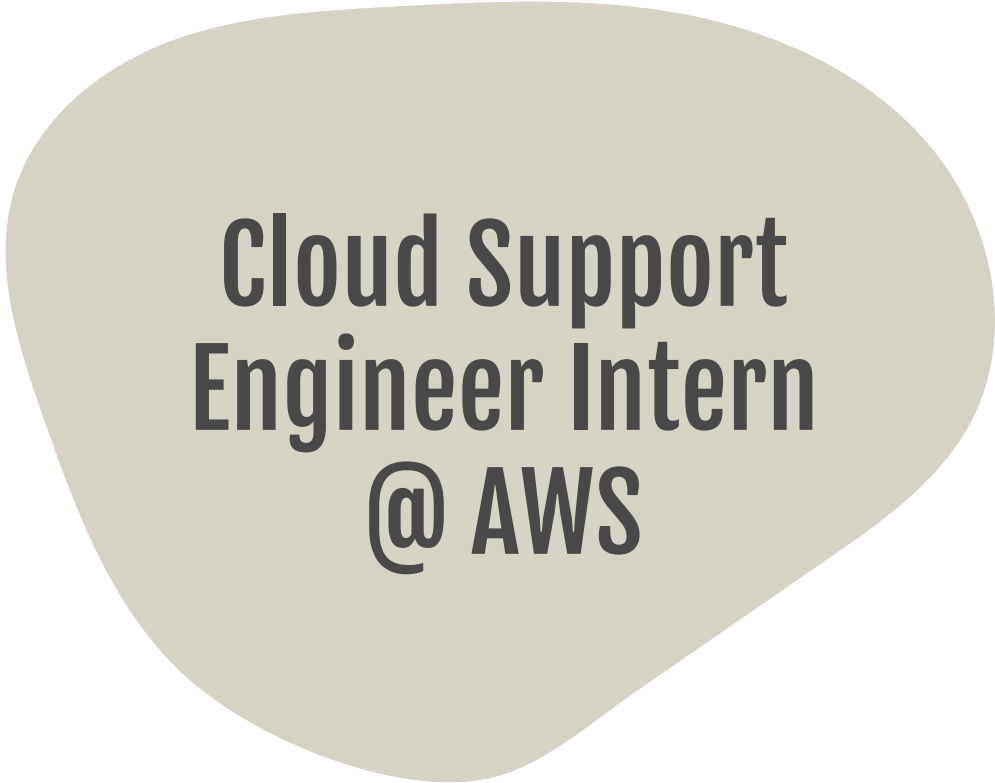

Military and Defense




Space Research



Online Gaming



**Cloud Support  
Engineer Intern  
@ AWS**



# AWS HPC Services



EC2



Elastic Fabric Adaptor



AWS ParallelCluster



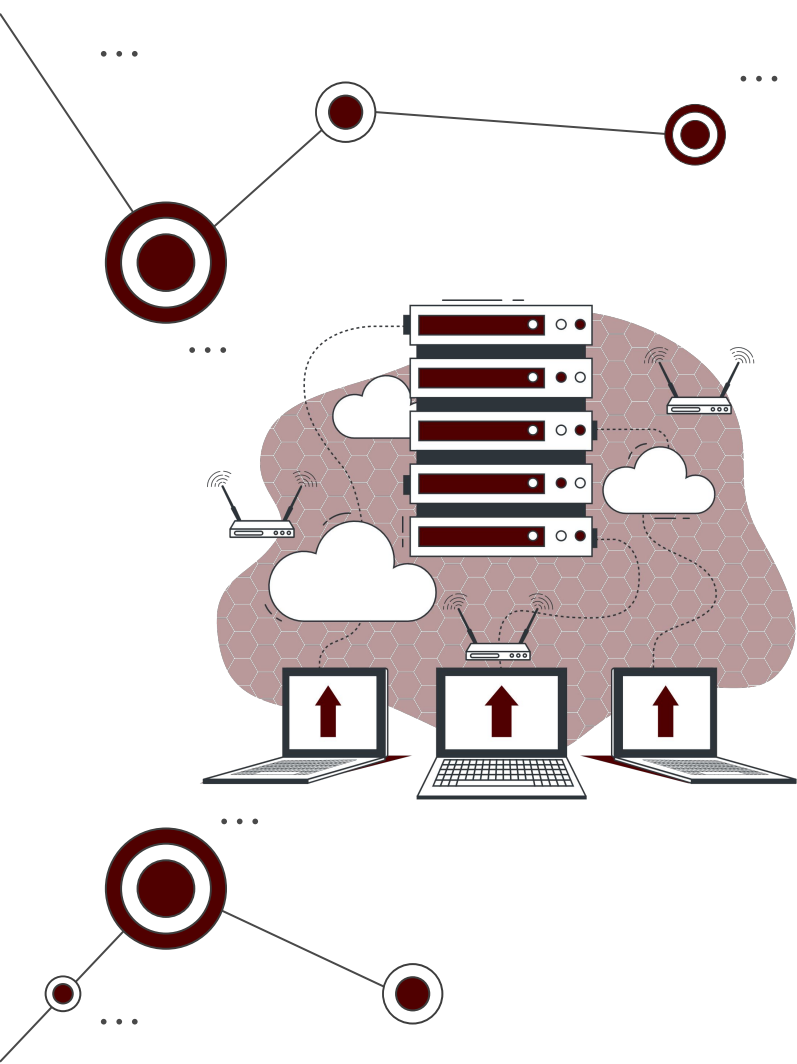
AWS Batch



Amazon FSx for Lustre



NICE DCV



## EC2 - Elastic Cloud Compute



Host WordPress Blog



Load Balance




Troubleshoot the environment



Configure security groups



A decorative network diagram consisting of several nodes connected by thin grey lines. The nodes are represented by concentric circles: a small dark red circle inside a larger white circle with a dark red border. Some nodes are significantly larger than others. The diagram is positioned around a central light beige rounded shape. In the top right, a path of four nodes leads to a large node, with three dots above it. In the bottom left, a path of four nodes starts from a large node, with three dots to its left. In the bottom right, a path of three nodes leads to a large node, with three dots below it.

# Supercomputing in our Futures

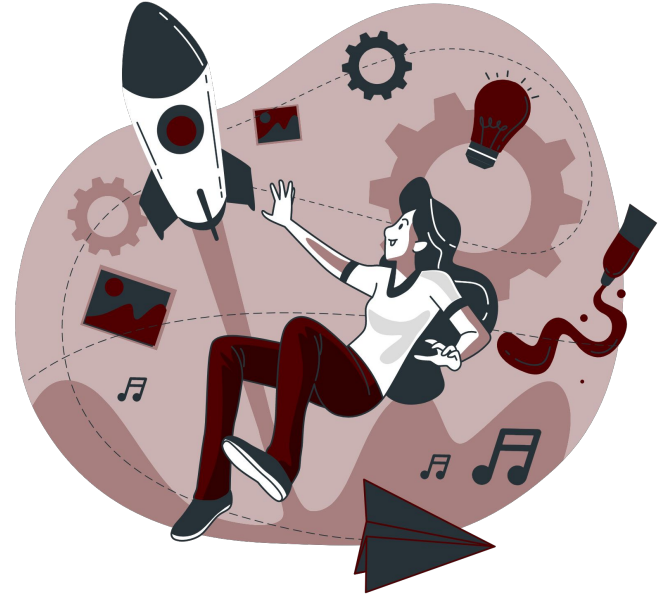
# Importance of HPC

Low Cost

Innovation

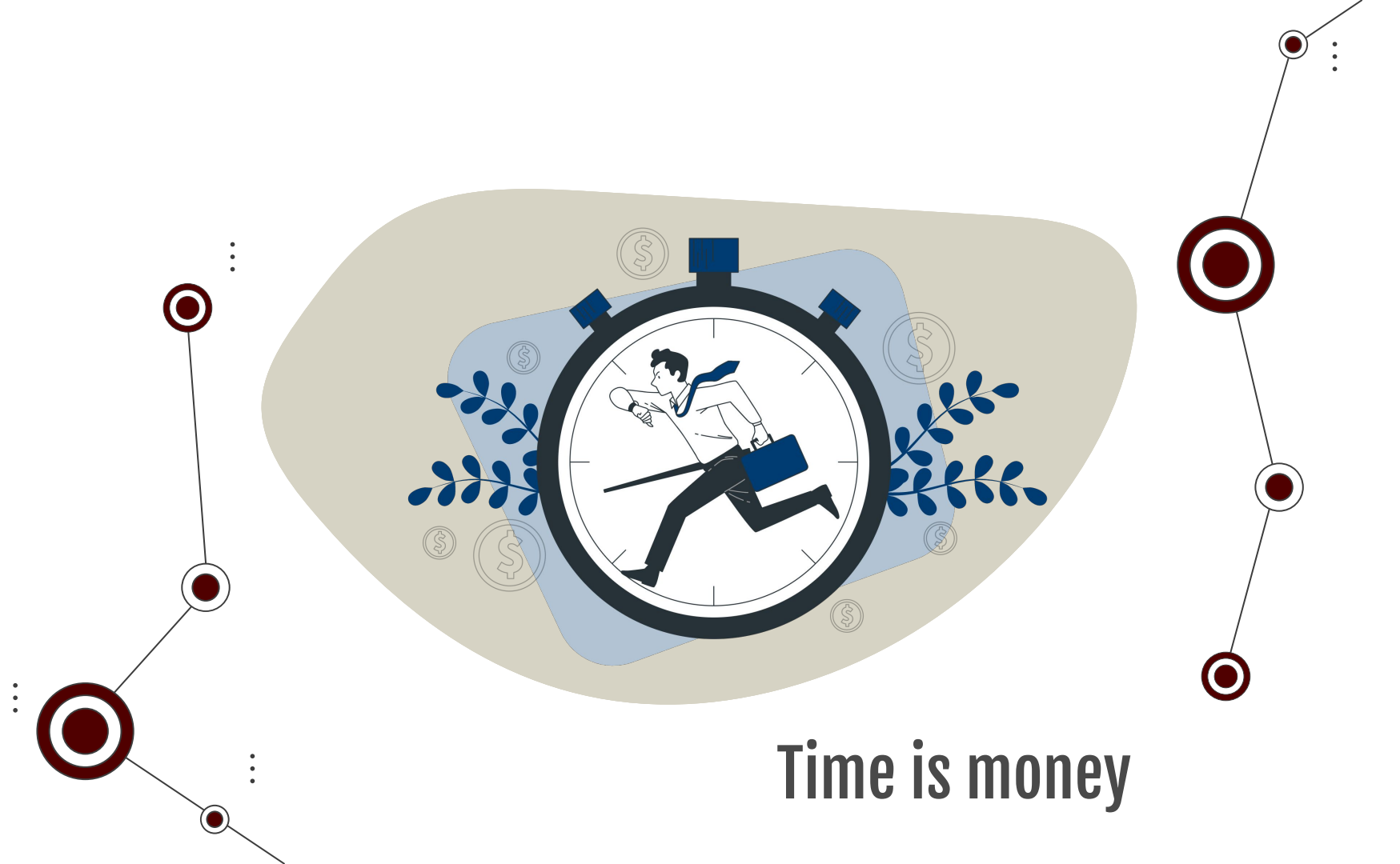
High Speed

Opportunity





**Time is money**





# Area of Innovation



**Health Care**



**Urban Planning**



**Engineering**



**Finance & Business**



**Quadrillions**

Calculations / Second

**vs.**

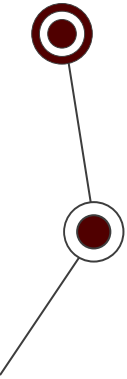
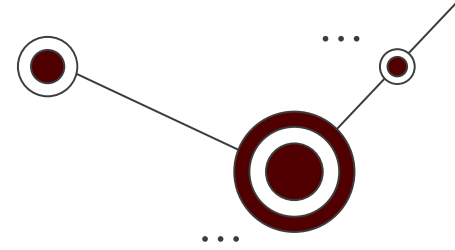
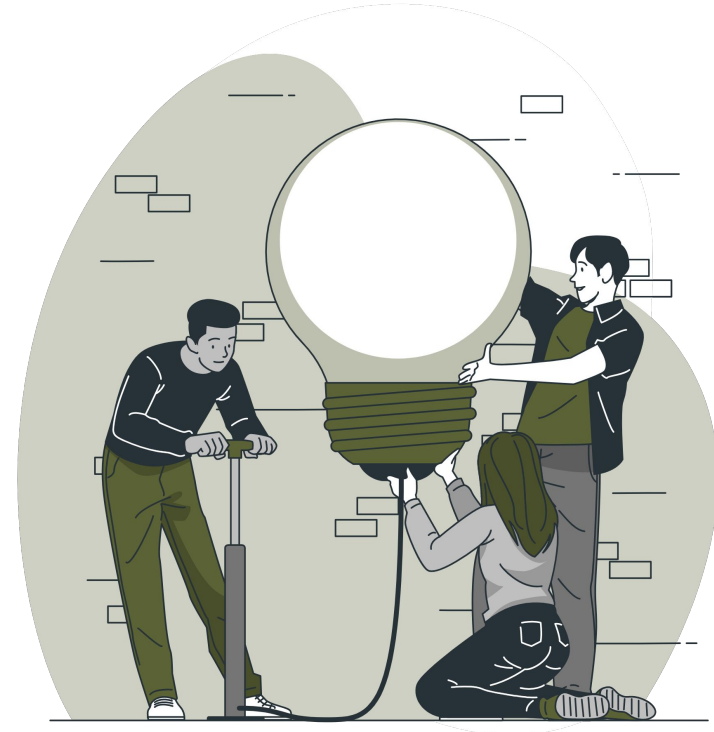
**3 Billion**

Calculations / Second



# Opportunities

- ★ Expand the skill set
- ★ Hands-on experience
- ★ Additional research opportunities
- ★ Interaction with the cutting edge technology



Thanks!

