

The logo is a shield-shaped emblem with a blue border. Inside the shield, the text "Microsoft Learn" is written in white. A dark blue banner across the middle of the shield contains the text "STUDENT AMBASSADOR" in white. Below the banner is a white icon of a person with arms raised. The shield is centered within a dark grey cloud shape. Several glowing blue and purple lines with small circular nodes extend from the shield towards the corners of the image.

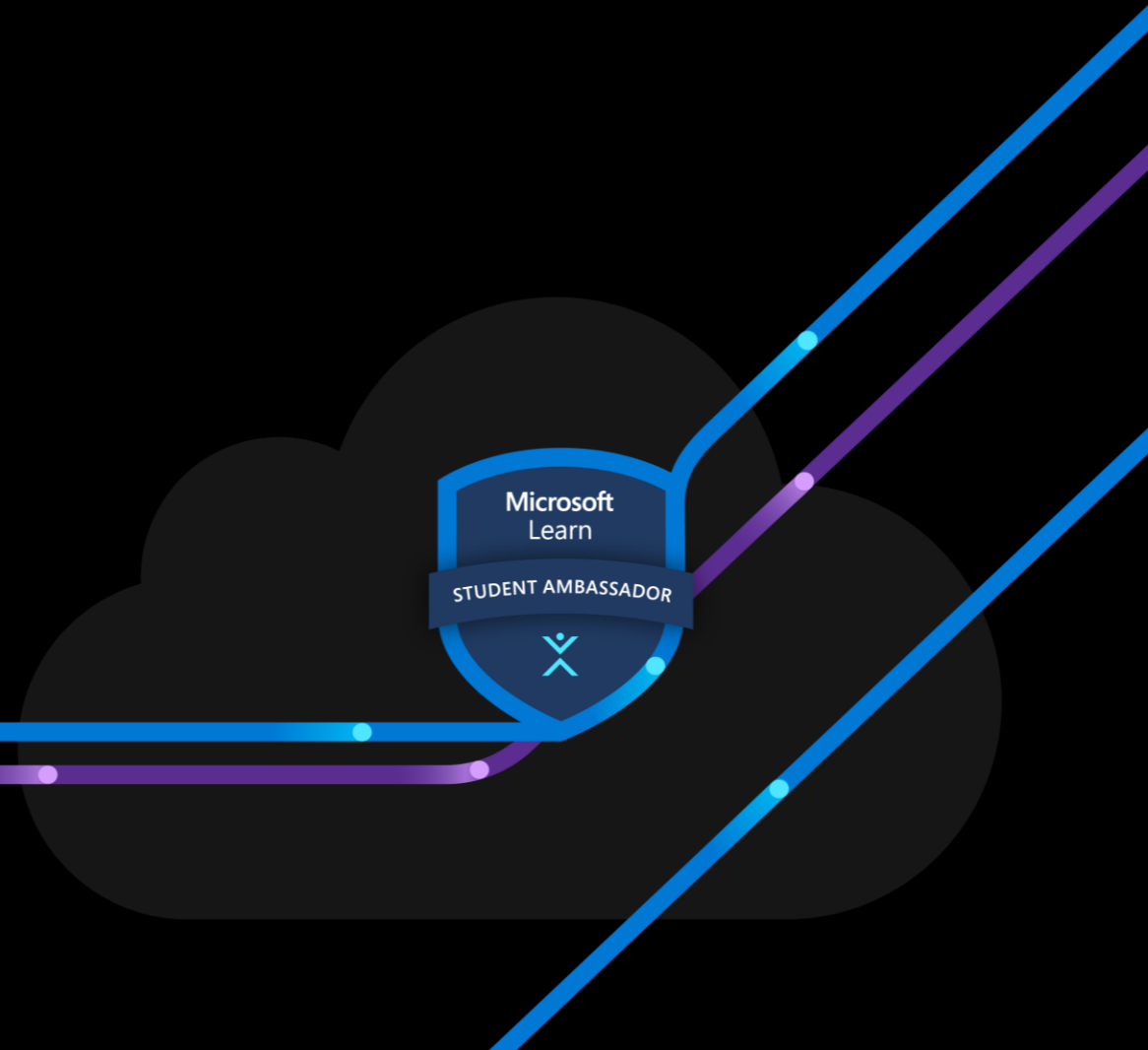
Microsoft
Learn

STUDENT AMBASSADOR



End to End AI Discord Bot

Using NodeJS and Deploying to Azure App Services



About Me




Tejas Morkar

Microsoft Learn Student Ambassador


Alpha Microsoft Learn Student Ambassador
Management Head at DSC PCCoE
Webmaster, ACM PCCoE Student Chapter
Co-Founder, DevsCollab Community
Department Editor, XRDS Magazine
Research-based AI Intern at CDAC




Session Flow

- Machine Learning & TensorFlow.js
 - Building a Discord bot using Discord.js
 - Introduction to Microsoft Azure
 - Applying for GitHub Student Developer Pack
 - Deploying the bot to Azure App Services
 - Learn more about Microsoft Learn Student Ambassador program and how you can apply to become an MLSA
- 

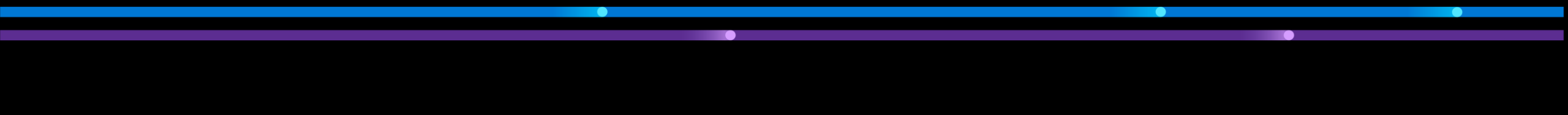
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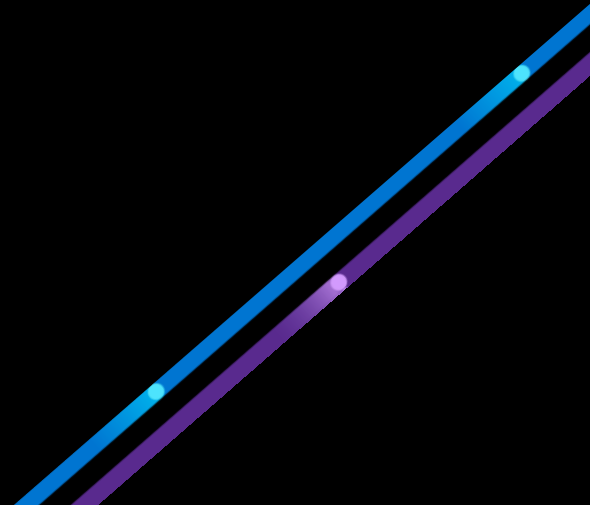
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- A decorative graphic at the bottom of the slide consisting of two horizontal lines. The top line is blue and the bottom line is purple. Both lines have a slight gradient and are punctuated by small white dots.

Session Flow

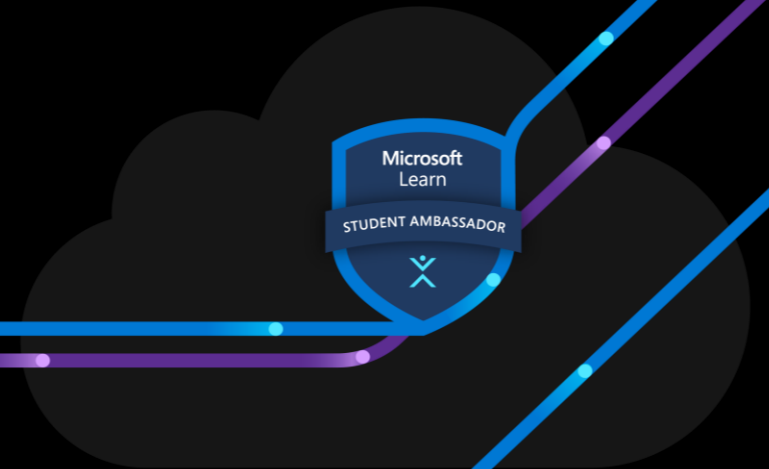
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It's Showtime!




But before that...

[mentimeter.com](https://www.mentimeter.com)



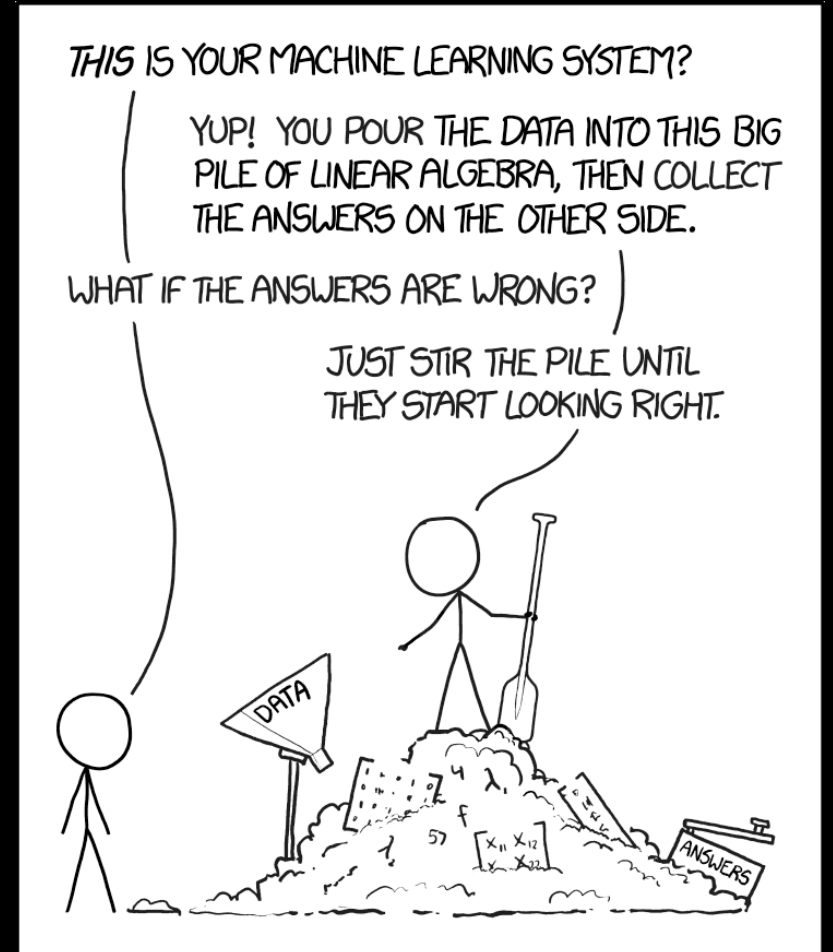
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- The bottom of the slide features two horizontal lines. The top line is blue and has three small blue dots positioned at approximately one-third, two-thirds, and three-quarters of the way across the slide. The bottom line is purple and has three small purple dots positioned at the same relative horizontal positions as the blue dots above.

What is Machine Learning?

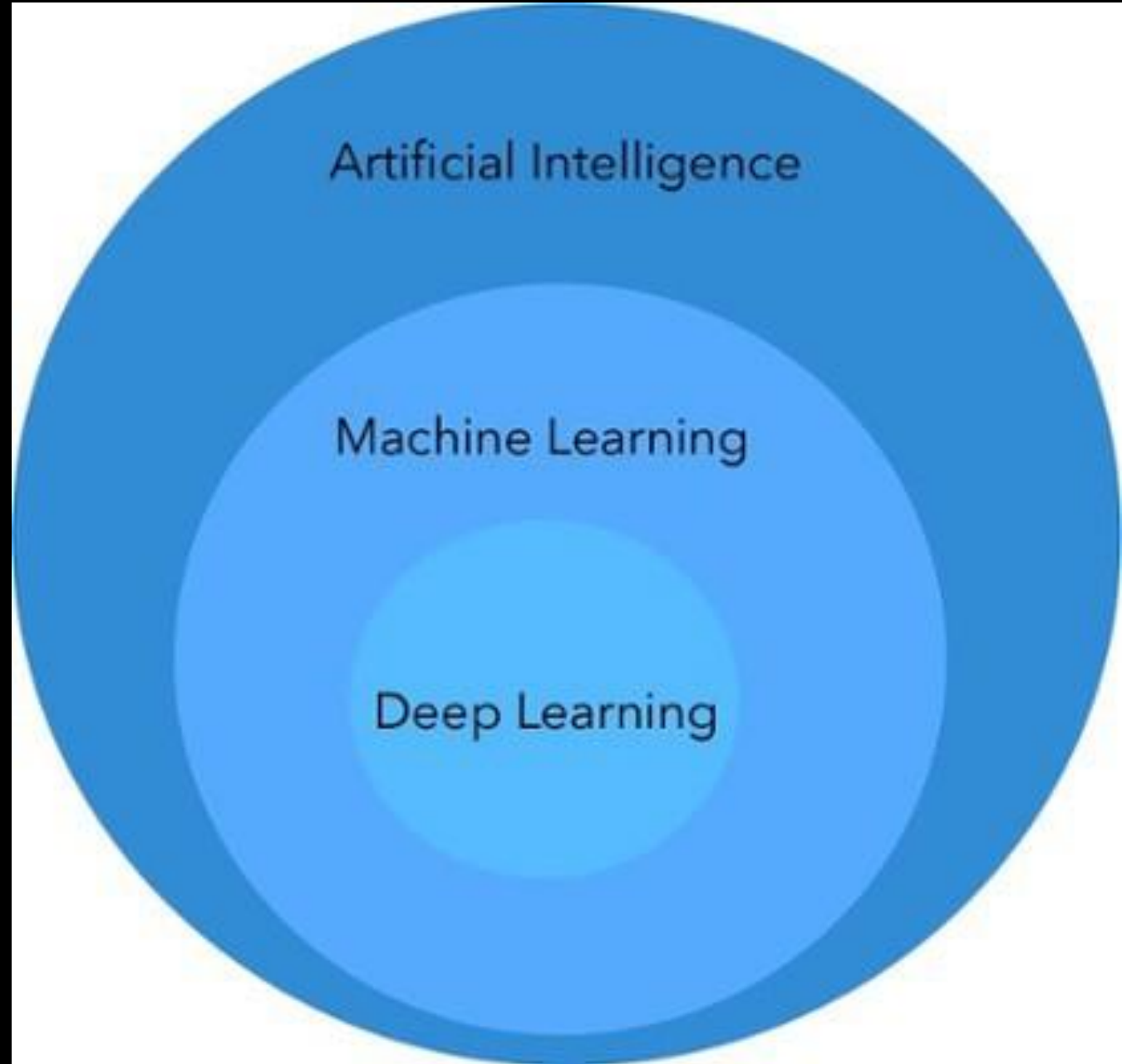
A process of solving a practical problem by

1. gathering a dataset, and
2. algorithmically building a statistical model based on that dataset

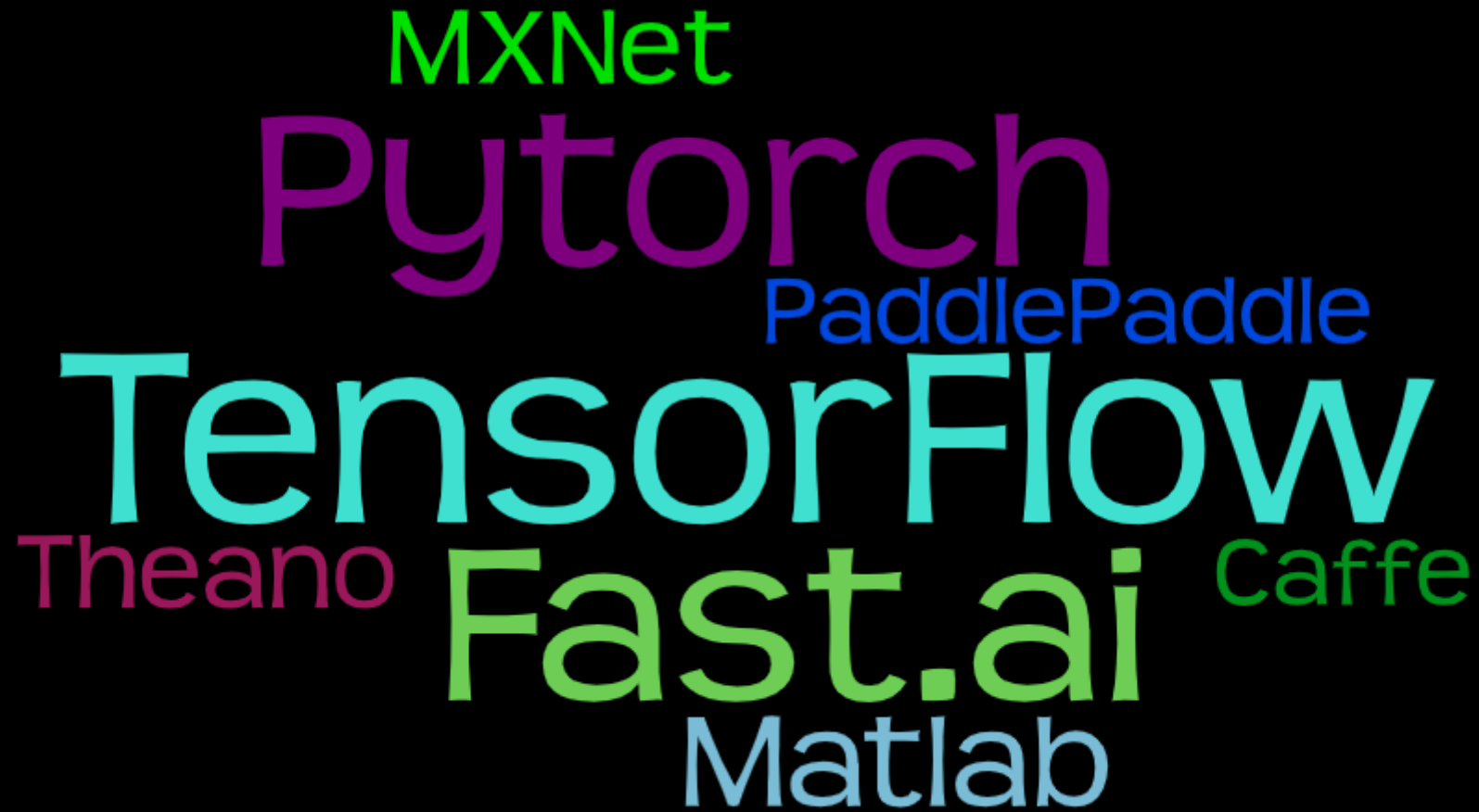


Artificial Intelligence, Machine Learning, and Deep Learning

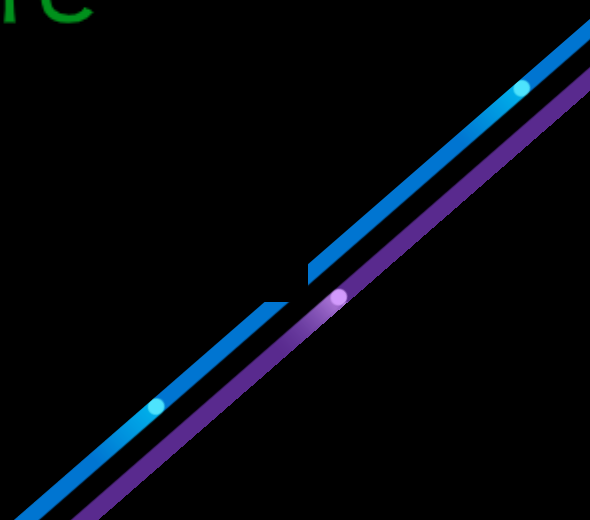
They are not the same!



Deep Learning Frameworks

A word cloud of deep learning frameworks on a black background. The words are arranged in a roughly triangular shape, with 'TensorFlow' being the largest and most central. Other frameworks include 'Pytorch', 'Fast.ai', 'Theano', 'Caffe', 'Matlab', 'PaddlePaddle', and 'MXNet'. The colors of the text vary, including shades of cyan, purple, green, and white.

MXNet
Pytorch
PaddlePaddle
TensorFlow
Theano Fast.ai Caffe
Matlab



TensorFlow.js


TensorFlow for JavaScript

- Use off-the-shelf JavaScript models or convert Python TensorFlow models to run in the browser or under Node.js
- Retrain pre-existing ML models using your own data
- Build and train models directly in JavaScript using flexible and intuitive APIs

Learn more about it at <https://www.tensorflow.org/js>



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Discord.js

npm install discord.js

```
const Discord = require('discord.js');
const client = new Discord.Client();

client.on('ready', () => {
  console.log(`Logged in as ${client.user.tag}!`);
});

client.on('message', msg => {
  if (msg.content === 'ping') {
    msg.channel.send('pong');
  }
});

client.login('token');
```

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What is Cloud Computing?

Delivery of computing services over the internet, which is otherwise known as the cloud.

It includes:

- Servers
- Storage
- Databases
- Networking
- Software
- Analytics
- Intelligence



There is no cloud
it's just someone else's computer

Advantages of the Cloud

Reliable

Scalable

Elastic

Agile

Geo-distribution

Disaster recovery



Cloud Service Models

IaaS

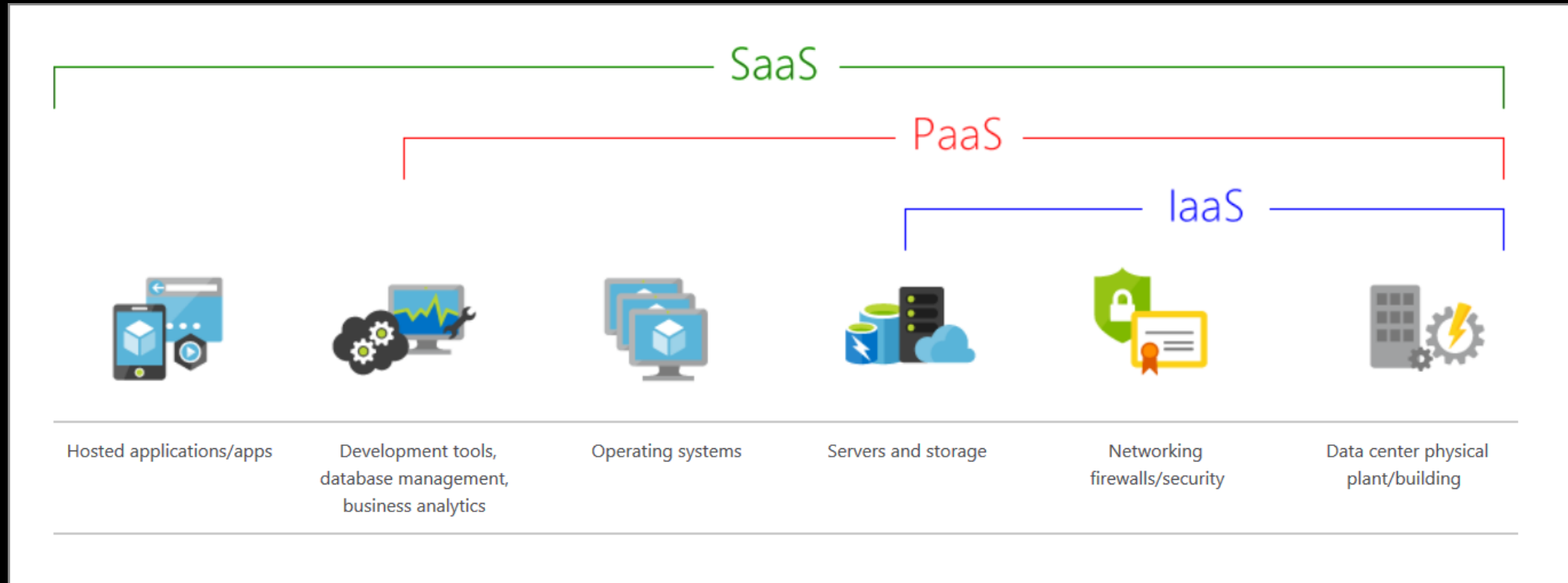
Infrastructure
as a Service

PaaS

Platform
as a Service


SaaS

Software
as a Service

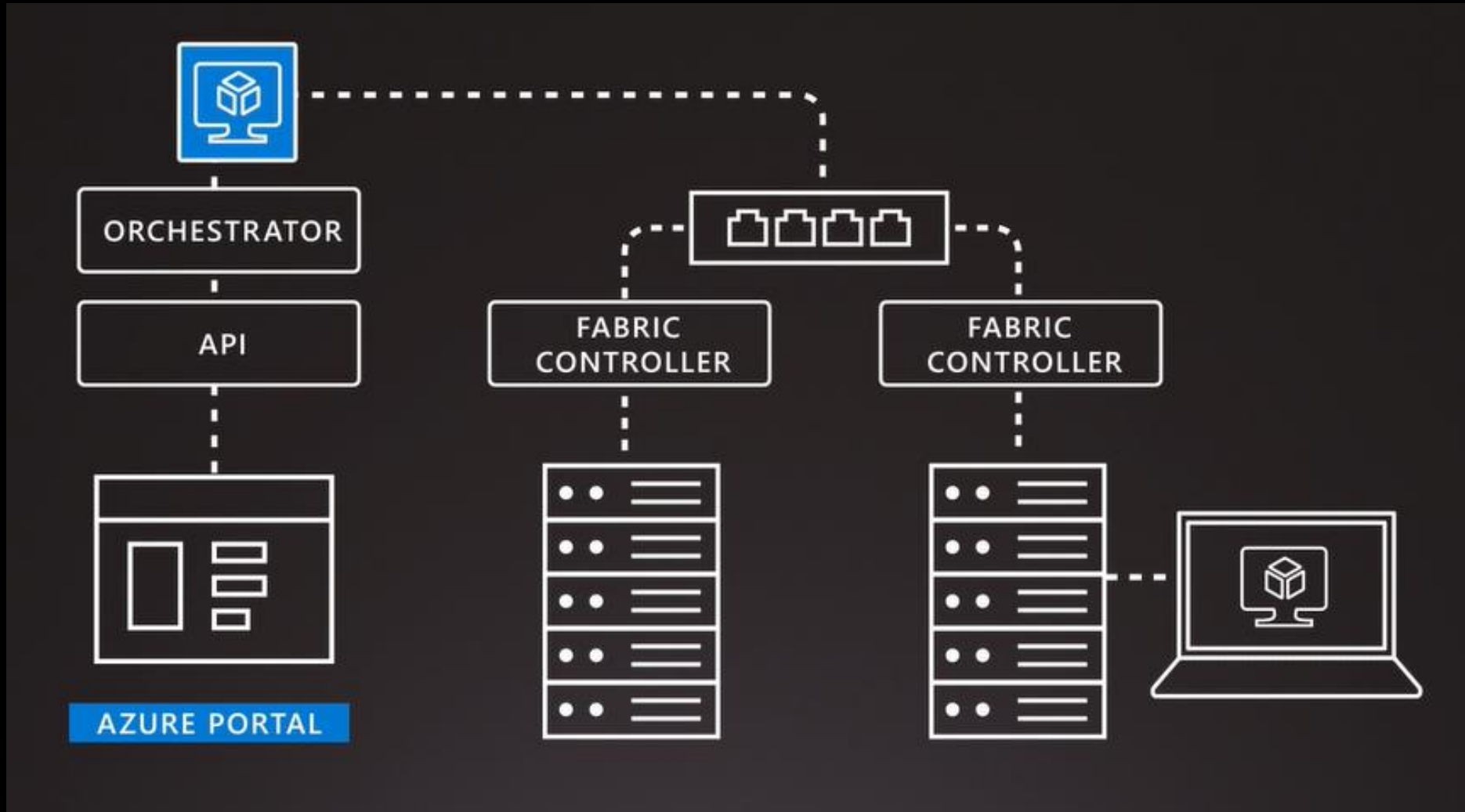


What is Azure?

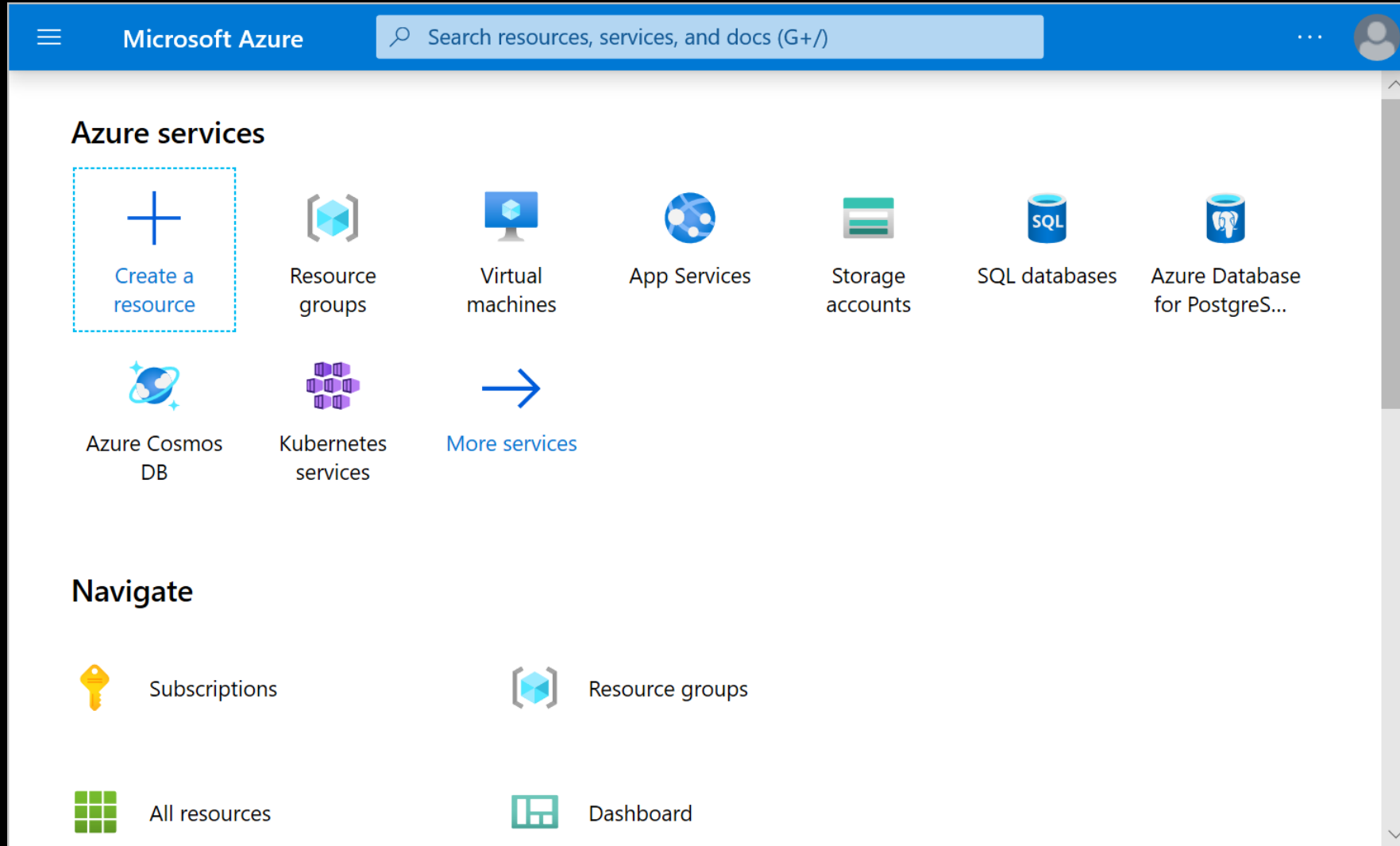
Azure is a cloud computing service created by Microsoft

- Get more than 100 services on Azure
 - Run your existing applications on virtual machines
 - Explore new software paradigms, such as intelligent bots and mixed reality
 - Use AI and machine-learning services that can naturally communicate with your users through vision, hearing, and speech
- 

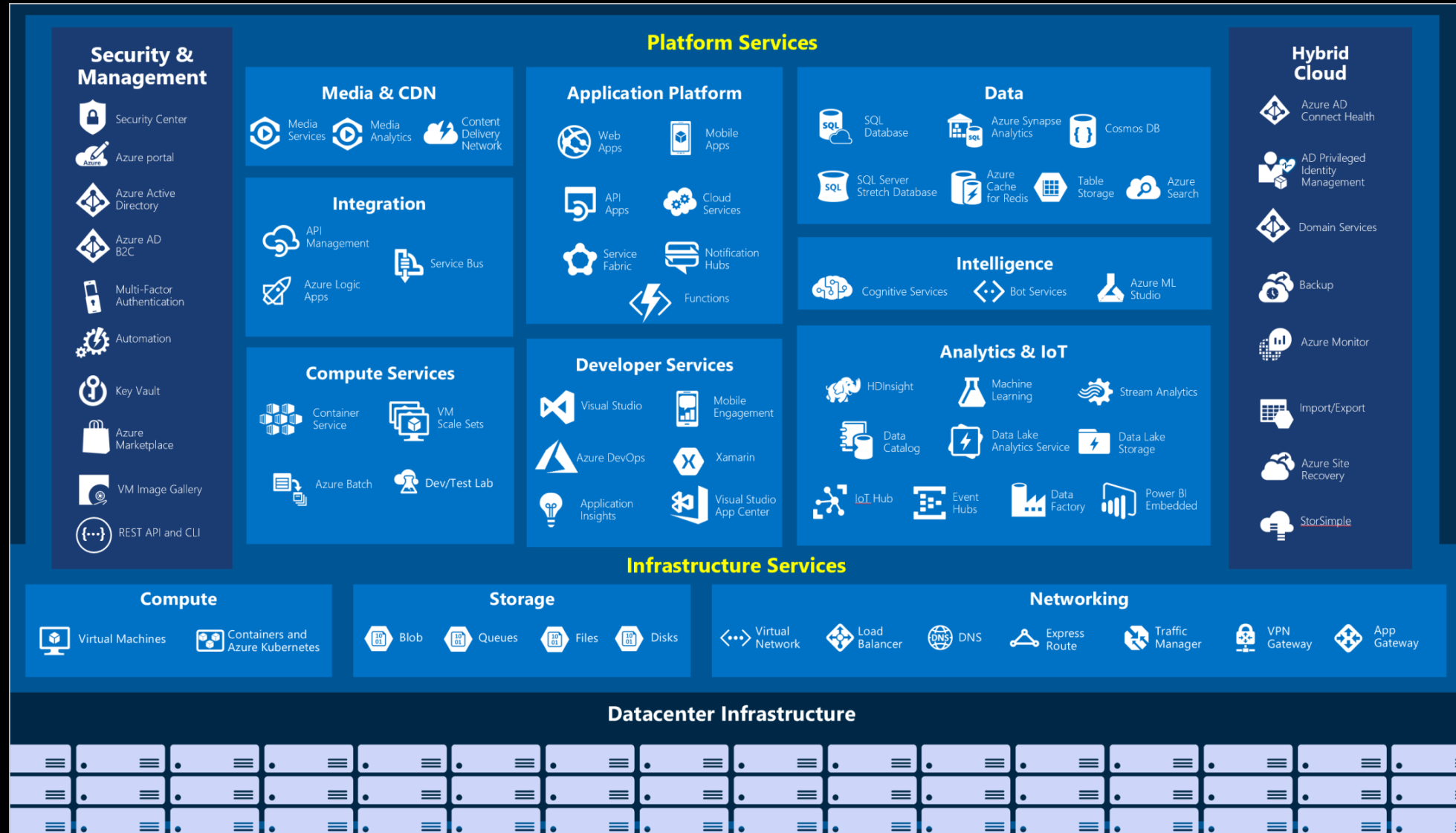
Behind the Scenes of Azure



Azure Portal



Azure Services




Azure for Students

<https://azure.microsoft.com/en-in/free/students/>

- Try Azure for Students free today
- Get \$100 credit to use in 12 months
- Free access to popular cloud services and developer tools
- No credit card required for verification
- Easy verification via GitHub Student Developer Pack

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Apply Now!

<https://education.github.com/pack>



GitHub Student Developer Pack

Get the best developer tools

There's no substitute for hands-on experience, but for most students, real-world tools can be cost prohibitive. That's why we created the Pack with some of our partners and friends, like:



Travis CI




HEROKU



DigitalOcean



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Add Azure App Service

Instance Details

Name: {WebAppName}

Publish: Code

Runtime Stack: Node 14 LTS

Operating System: Windows

Region: Central US

App Service Plan

Windows Plan: Create New

Skus and size: Free F1



Create a WebJob

Add WebJob

Name: {WebJobName}


File Upload: WebJobFolder.zip*

Type: Continuous

*The zip should contain the index.js file and the node_modules folder



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Microsoft Learn Student Ambassadors

<https://studentambassadors.microsoft.com>

Become a Student Ambassador

Finding your community is more important than ever as classes and social activities take place virtually. Amplify your impact and bring together your peers to learn new skills, solve real-world problems, and build communities across the globe.

Apply now >

Be a force for good—locally and globally

You might find yourself helping fellow students build their coding skills online with Microsoft Learn, organizing a virtual hackathon to solve real-world challenges, earning certifications, or building digital communities—it's all up to you.



Apply



Profiles



Events



Imagine Cup



MS Learn

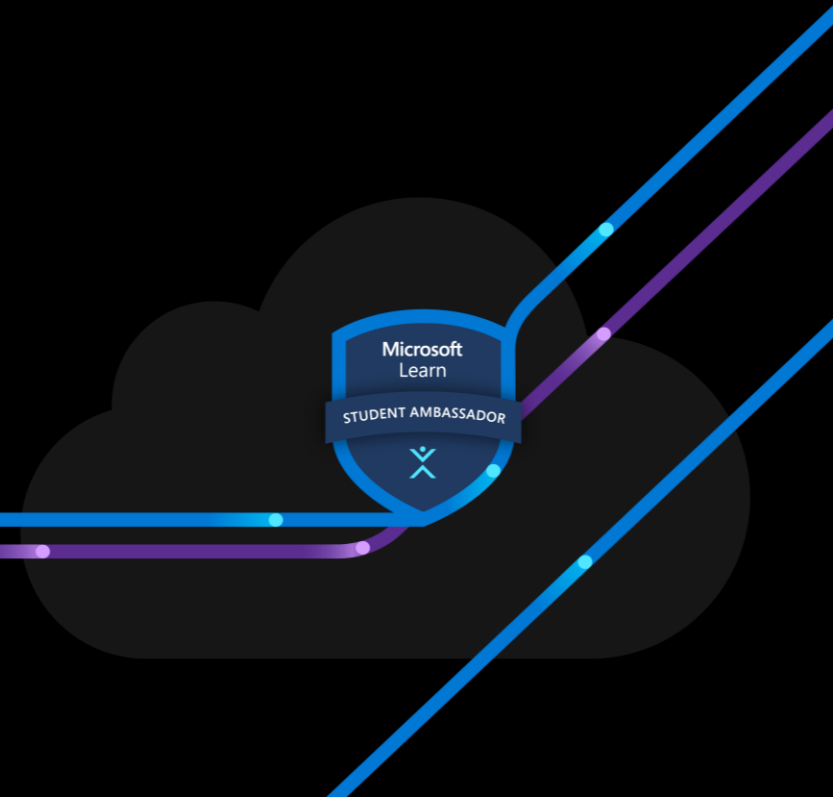
If you have any doubts...





I YOU KNOW [REDACTED]
[REDACTED] WHAT YOU
[REDACTED] GOTTA D

Ask Questions!



Thank You!

