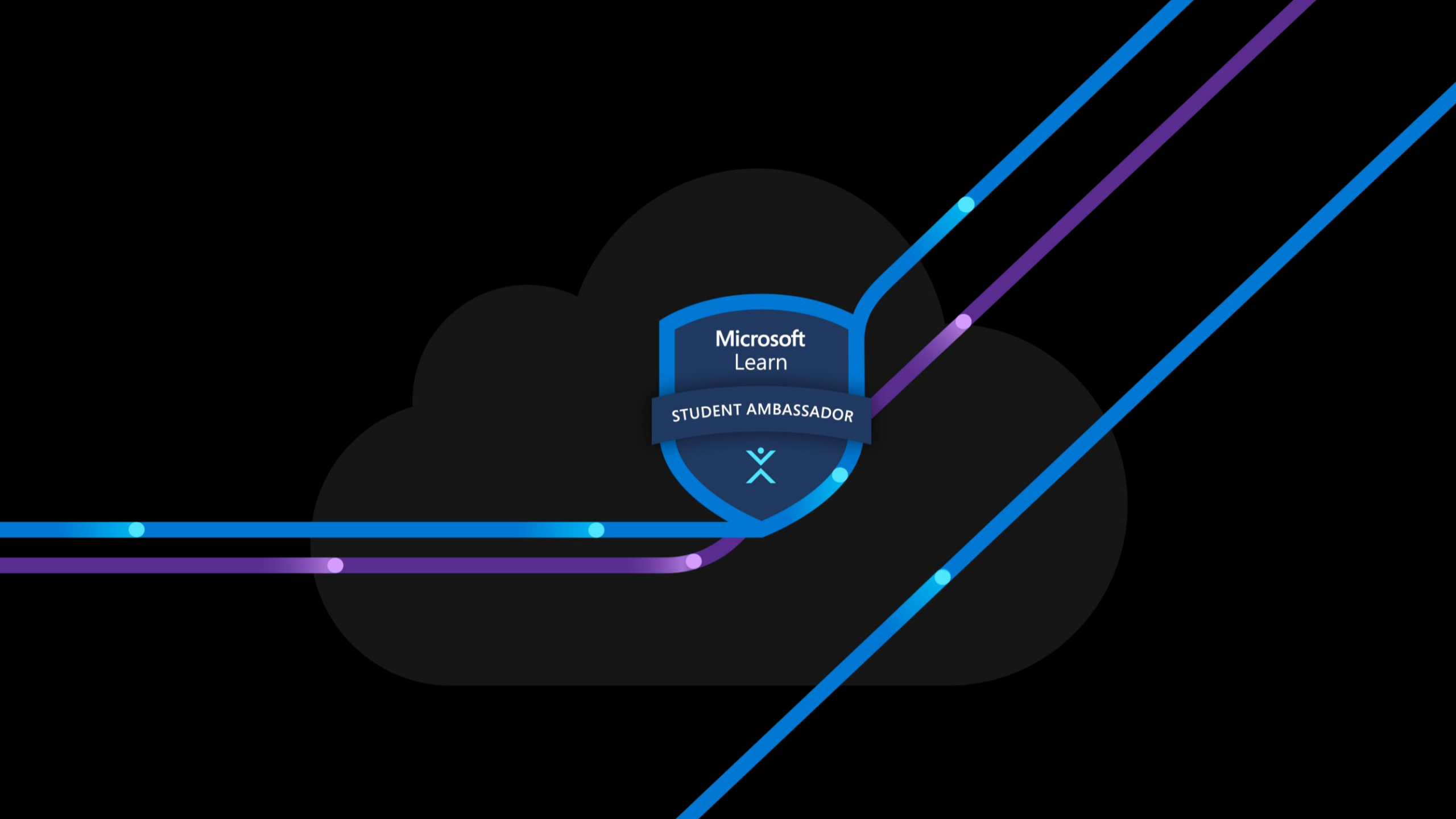
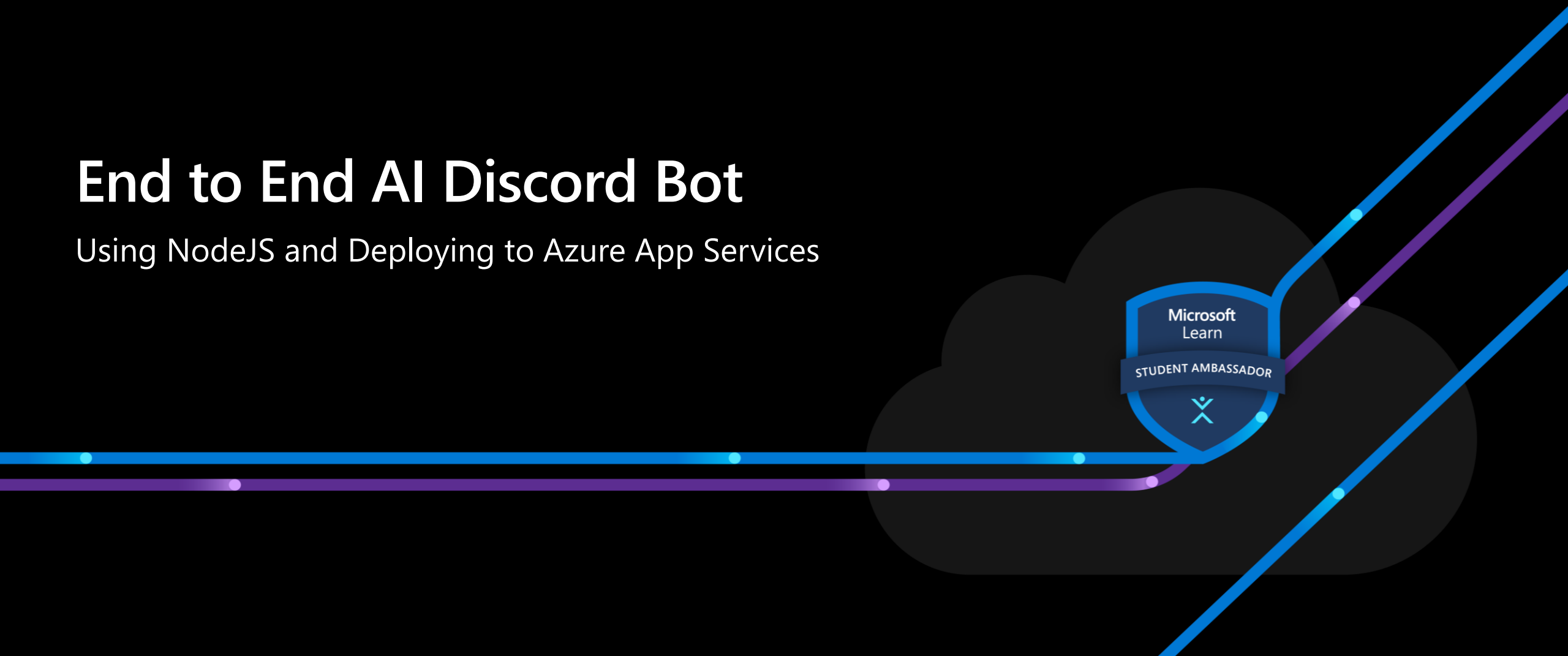

Microsoft
Learn
STUDENT AMBASSADOR

Microsoft Learn
Student Ambassadors

End to End AI Discord Bot

Using NodeJS and Deploying to Azure App Services



Microsoft Learn
Student Ambassadors

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

tejasmorkar.tech

in/tejasmorkar

@TejasMorkar

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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It’s Showtime!

But before that…

mentimeter.com

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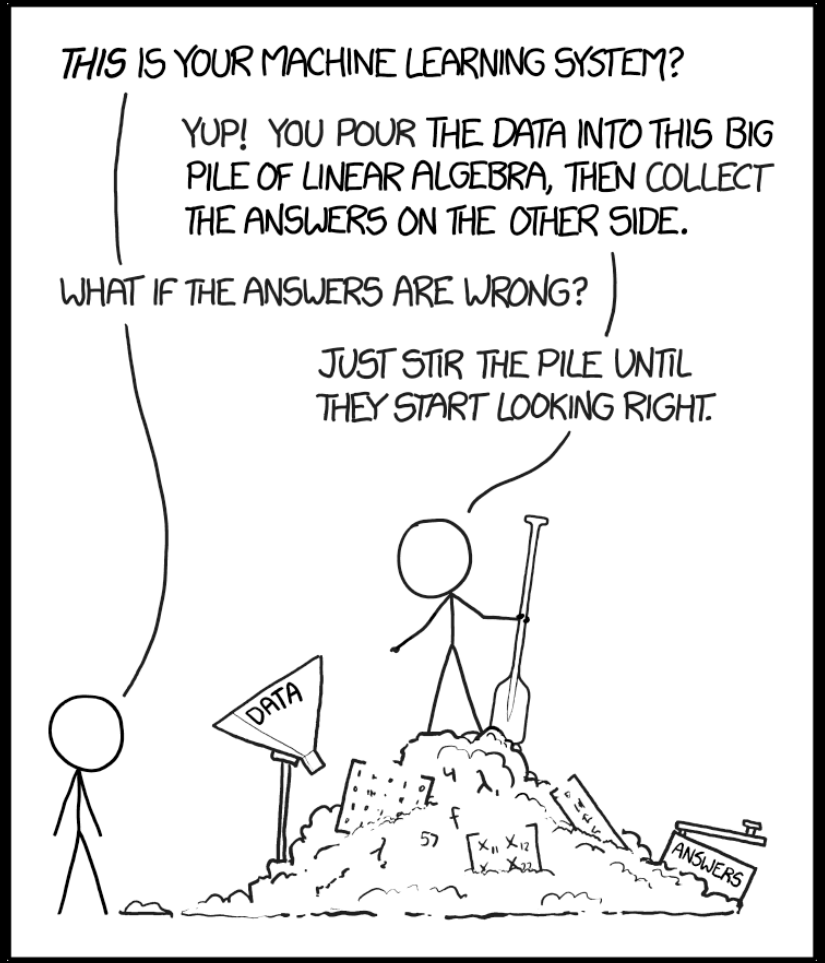
What is Machine Learning?

A process of solving a practical problem by

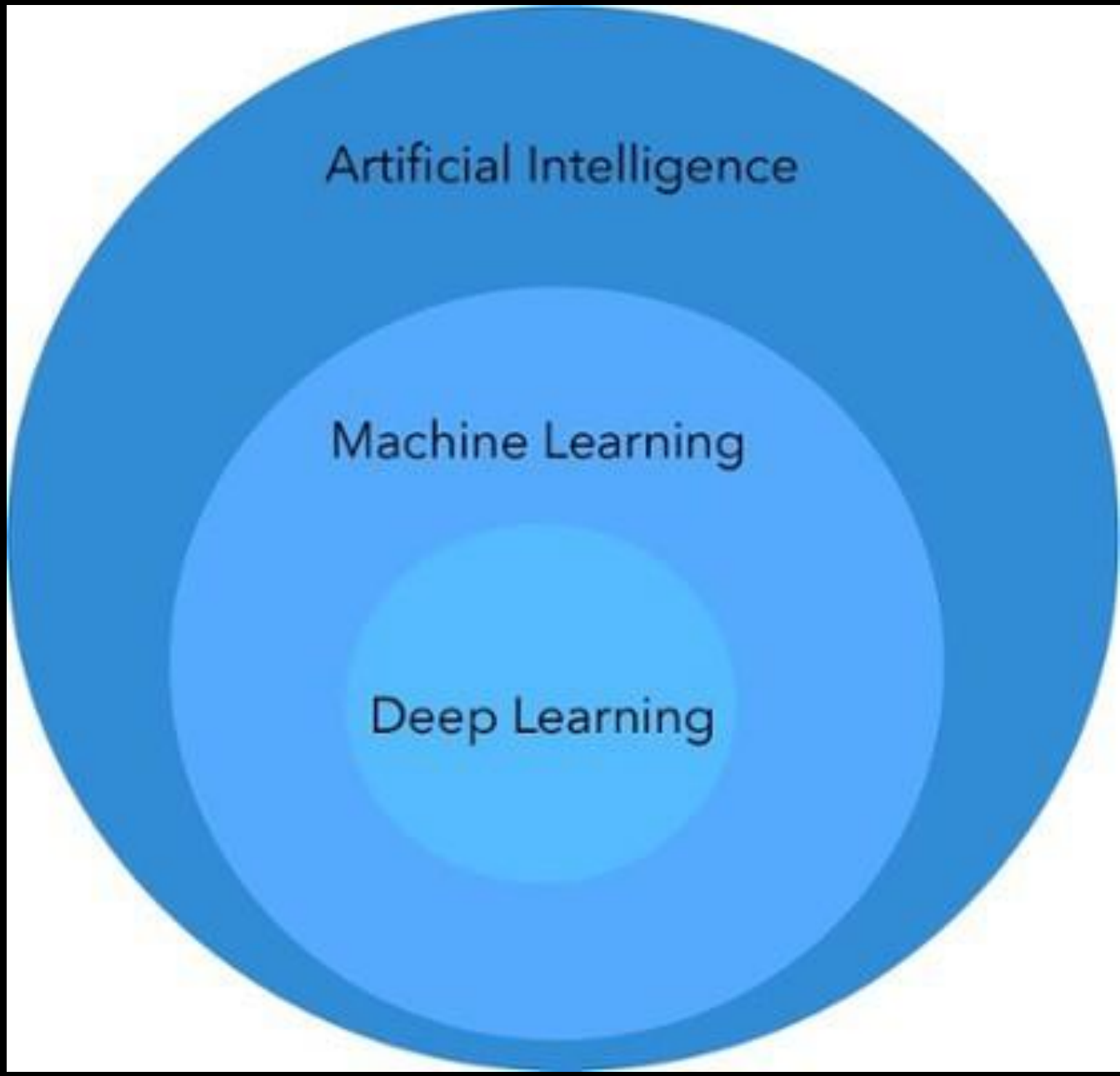
1. gathering a dataset, and
2. algorithmically building a statistical model based on that dataset



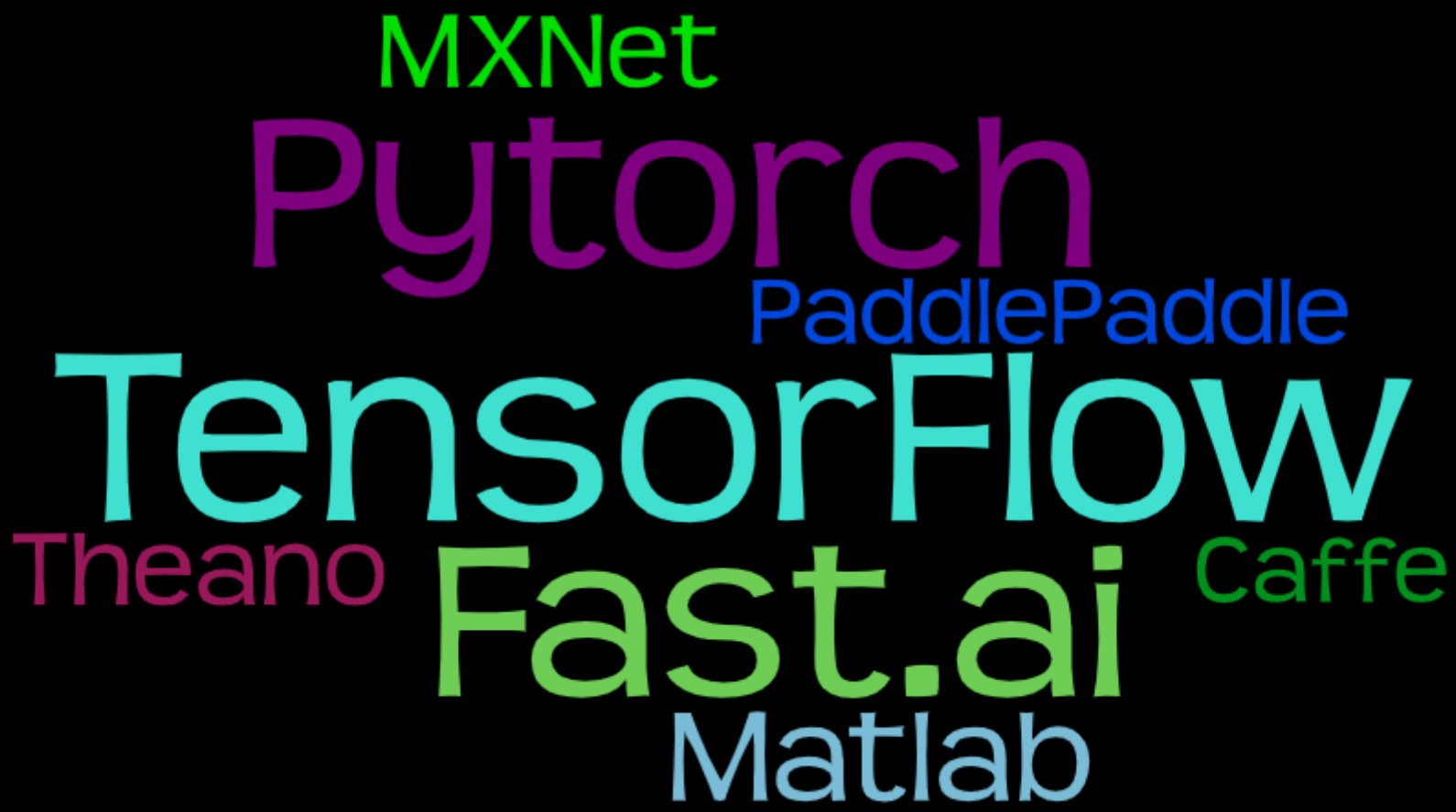
The definition of Machine Learning mentioned here is borrowed from 'The Hundred-Page Machine Learning Book' by Andriy Burkov

Artificial Intelligence, Machine Learning, and Deep Learning

They are not the same!



Deep Learning Frameworks



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

Advantages of the Cloud

Reliable

Scalable

Elastic

Agile

Geo-distribution

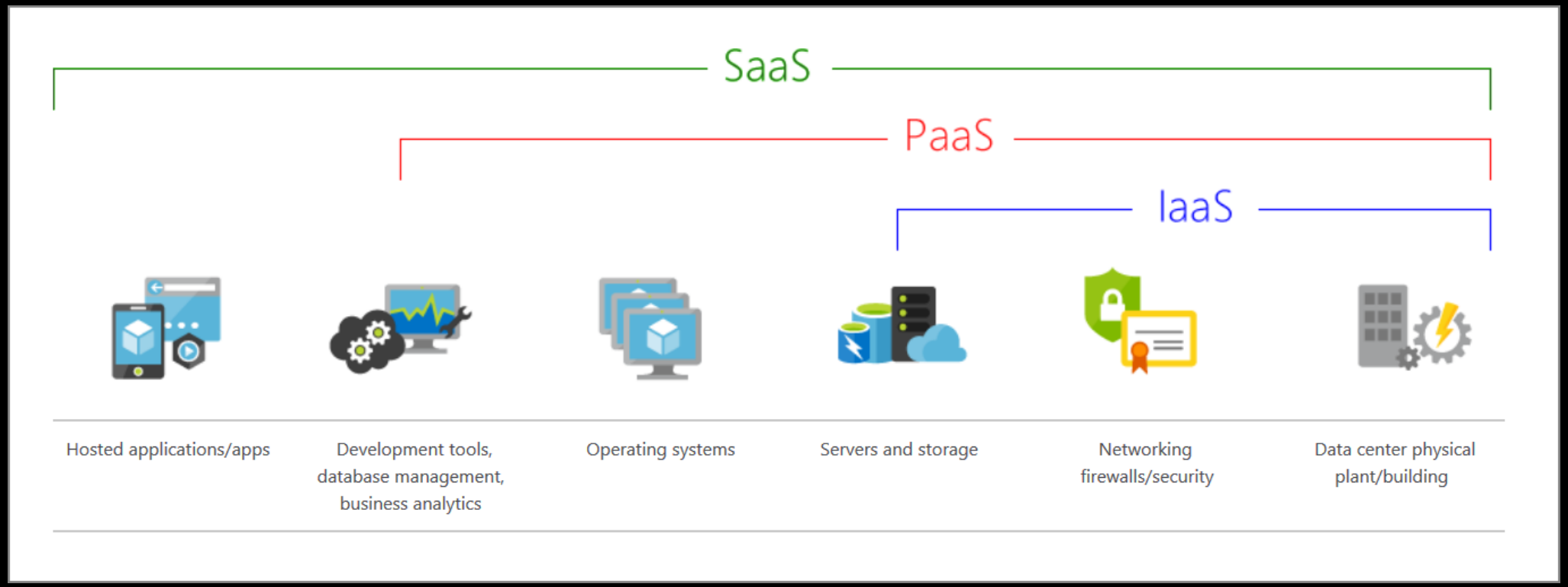
Disaster recovery

Cloud Service Models

IaaS
Infrastructure
as a Service

PaaS
Platform
as a Service

SaaS
Software
as a Service

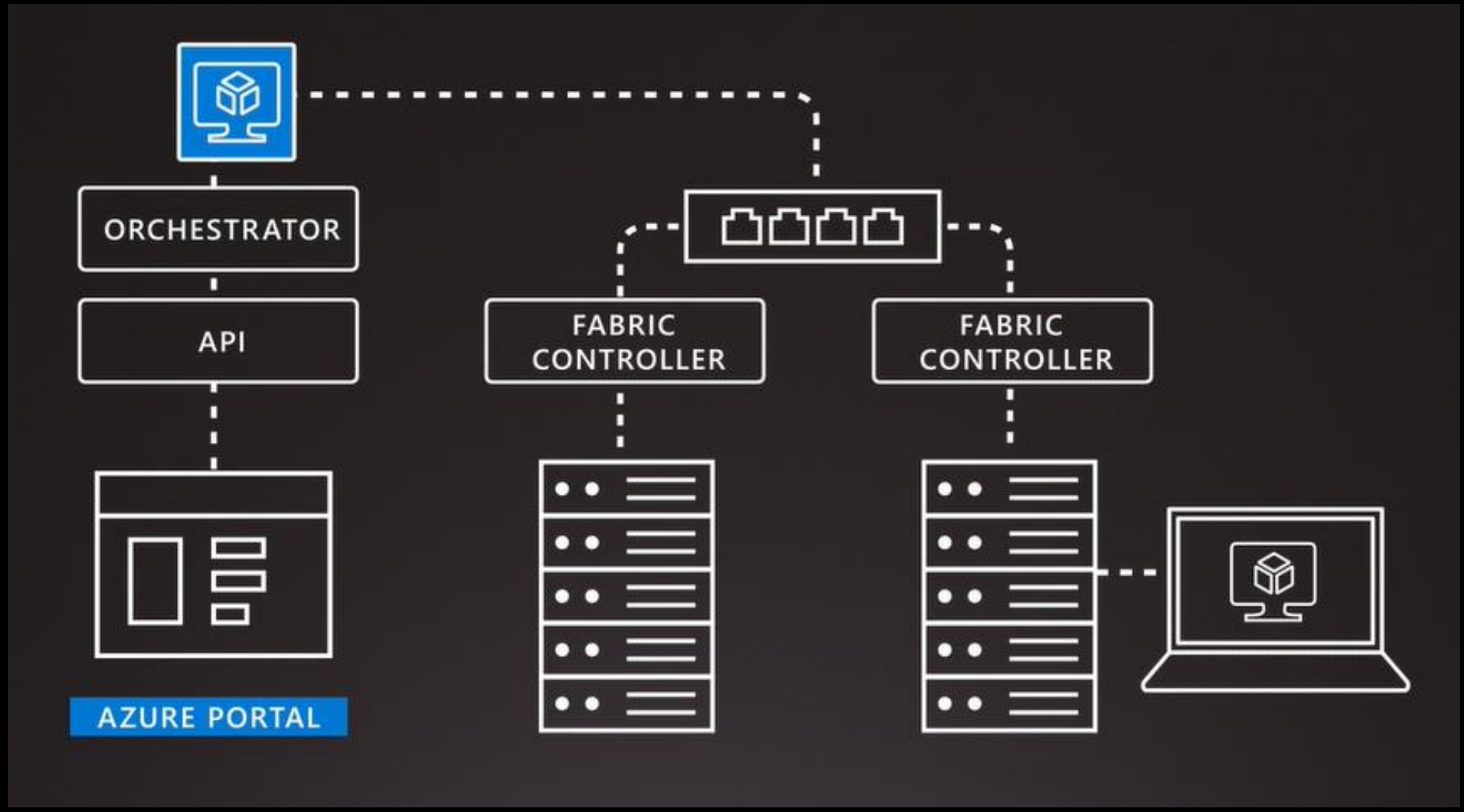


What is Azure?

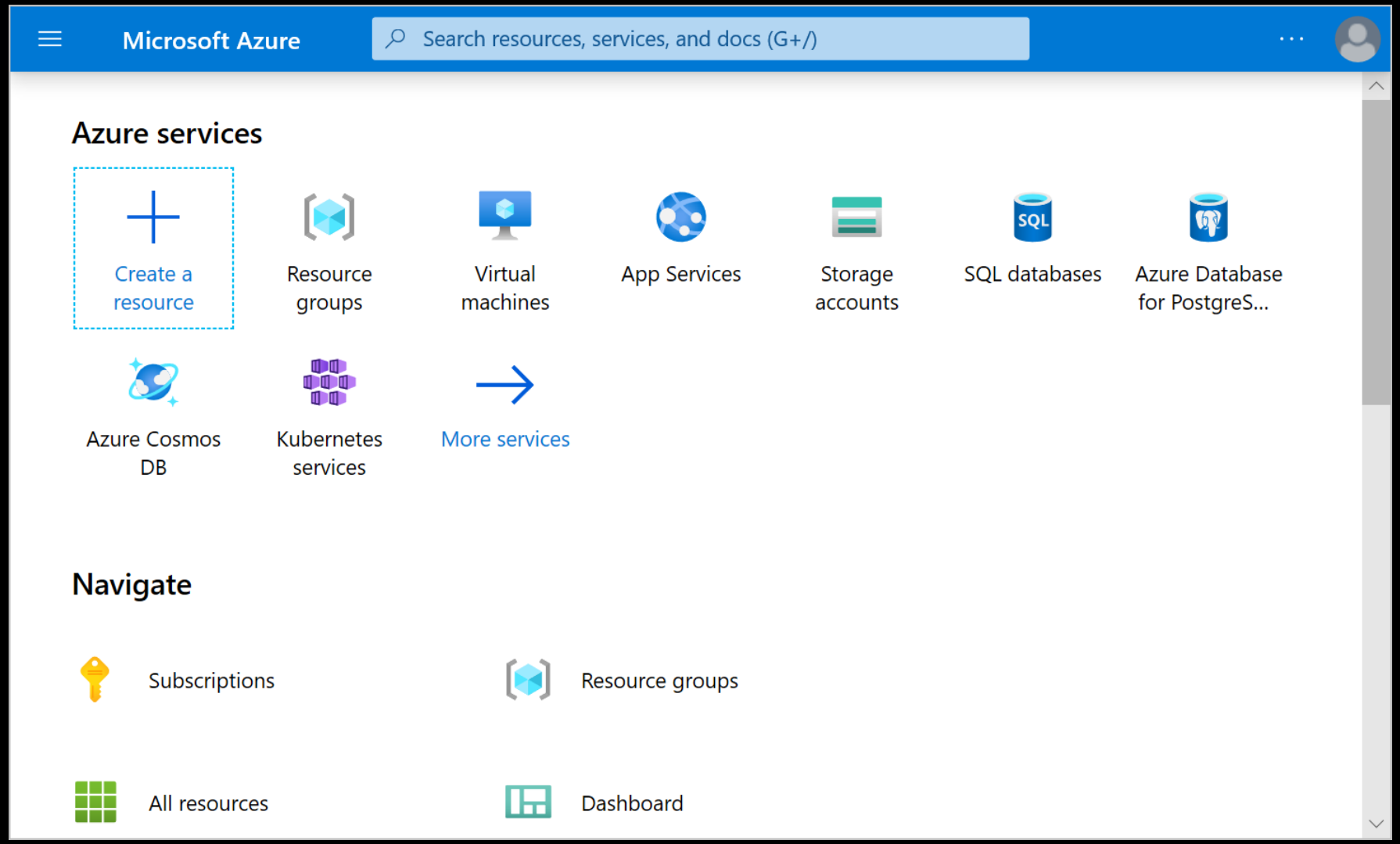
Azure is a cloud computing service created by Microsoft

- 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

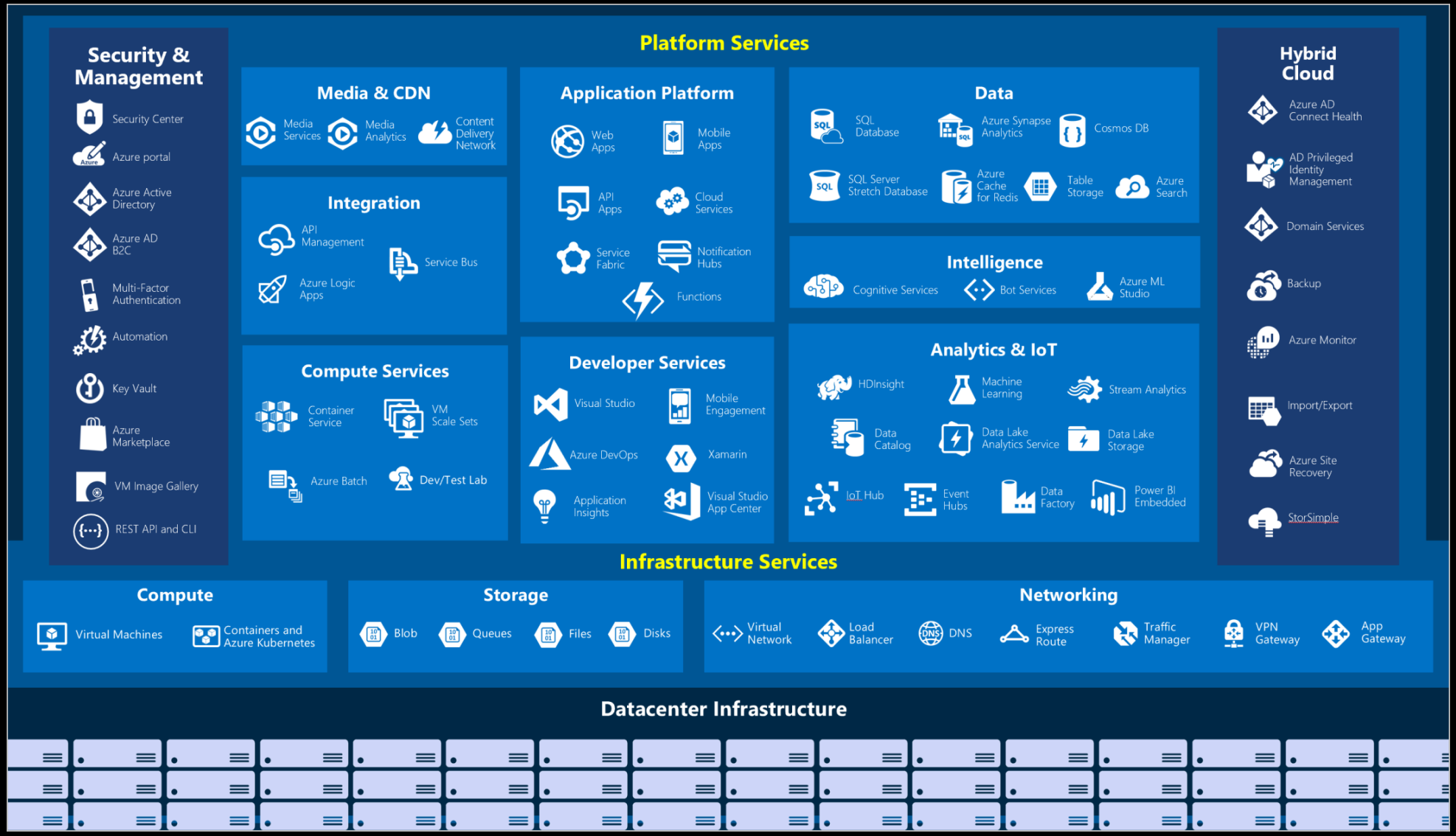
Behind the Scenes of Azure



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

Canva

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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

Sku 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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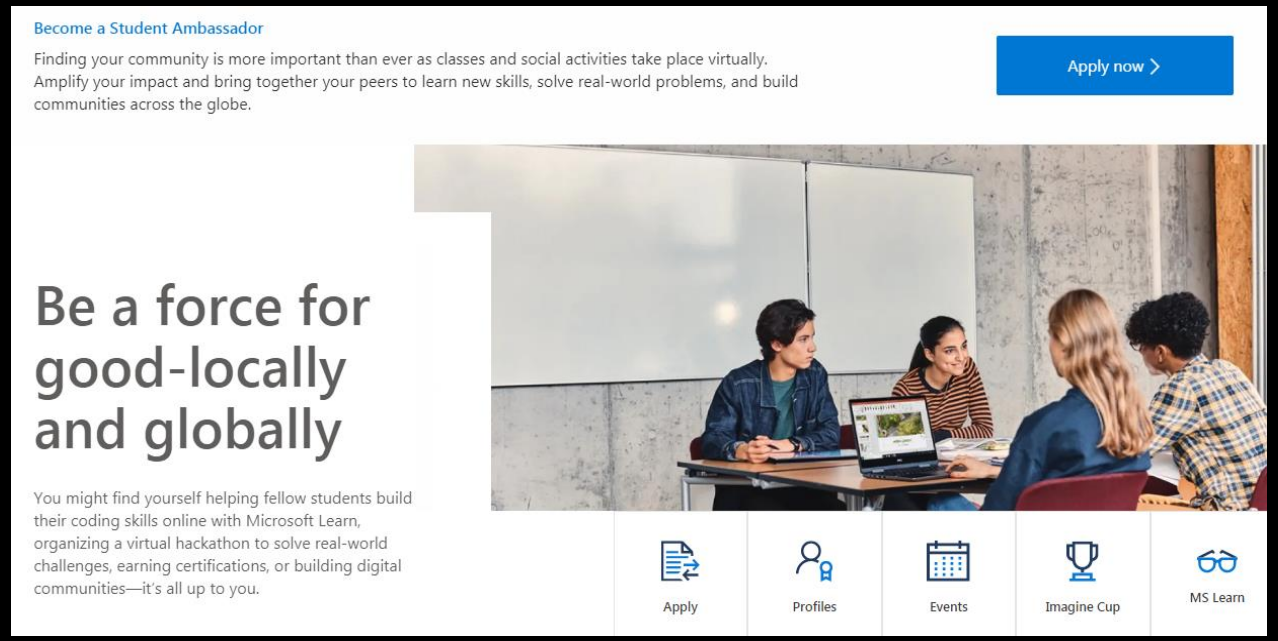
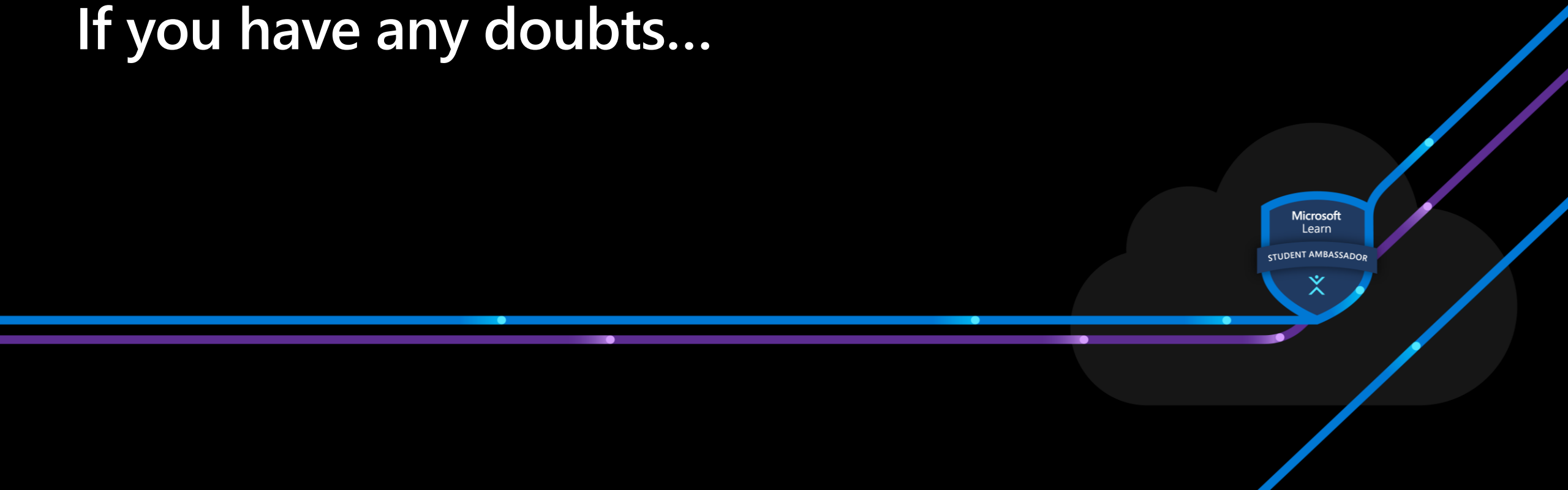
https://studentambassadors.microsoft.com



If you have any doubts...



YOU KNOW
WHAT YOU
GOTTA D

Ask Questions!

Thank You!