

# How do I prepare for the hackathon?

It’s all about project ideas and hackathon resources! Below are some suggestions to get you started with both.

## Ideas

Disrupt AI is all about finding ways to use innovation to disrupt YOUR industry. Different teams will find inspiration from different challenges they face at work. Here’s a few ideas to get you started:

### Financial Services­­­­

* Can you use machine learning to better understand your customer? Detect and analyze buying patterns, financial behaviors, customer satisfaction, fraud detection in transactions, and risk profiles.
* Can you use bots, sentiment analysis, or natural language processing to improve call center operations?

### Retail

* Can you use machine learning to better understand your customer? Detect and analyze buying patterns, or segment customers for loyalty programs and promotions
* Can you leverage bots, natural language processing, and intelligent search to create an omni-channel experience to better engage your customers online and offline?
* Can you leverage the Internet of Things and data insights to make day to day operations more effective?

### Healthcare

* Can you use machine learning and online services to improve the effectiveness of clinical care? Use predictive learning to provide care guidance, effective treatment planning, population health management, analysis of medical imaging, and pre/post surgery support
* Can you Leverage AI and machine learning to improve operations? Use predictive learning to improve staffing, admission management, wait times, and bed allocation

### Manufacturing

* Can you automate tasks to allow your workforce to focus on higher-value activities?
* Can you build smarter systems? Leverage IoT, improved sensors and the rollout of 5G connectivity to collect data, gain insights to increase responsiveness and improve efficiency.

## Resources

We’ll provide you with lots of great resources at the hackathon to help:

* Workshops
  + “How to confidently build and deploy Machine Learning models in Azure “ – Hossein Sarshar
  + “Future of Computing – using AI in real world” - Vinnie Saini
  + “DevOps for Data Science” – Padmalatha Raghunathan
  + “Leveraging the power of open data sets” - Thinkdatawire
* Mentors
* Publicly available Open Dataets
* Access to Azure
* Food and caffeine to keep you going!

If you already have an idea, here are some great Azure resources to help you get a head start:

* [Get Started Guide for Azure Developers](https://docs.microsoft.com/en-us/azure/guides/developer/azure-developer-guide)
* [Azure Application Architecture Guide](https://docs.microsoft.com/en-us/azure/architecture/guide/)
* [Azure Documentation](https://docs.microsoft.com/en-us/azure/)
* Azure App Models:
  + [App Service](https://docs.microsoft.com/en-us/azure/app-service/)
  + [Serverless](https://docs.microsoft.com/en-us/azure/azure-functions/)
  + [Containers](https://docs.microsoft.com/en-us/azure/containers/)
  + [Microservices & Kubernetes](https://docs.microsoft.com/en-us/azure/aks/)
* Artificial Intelligence and Cognitive Services
  + [Machine Learning](https://docs.microsoft.com/en-us/azure/machine-learning/)
  + [Cognitive Services](https://docs.microsoft.com/en-us/azure/cognitive-services/)
    - Vision APIs: [Computer Vision](https://docs.microsoft.com/azure/cognitive-services/computer-vision/), [Custom Vision Service](https://docs.microsoft.com/azure/cognitive-services/Custom-Vision-Service/home), [Content Moderator](https://docs.microsoft.com/azure/cognitive-services/content-moderator/overview), [Face API](https://docs.microsoft.com/azure/cognitive-services/face/), [Video Indexer](https://docs.microsoft.com/azure/cognitive-services/video-indexer/video-indexer-overview)
    - Speech APIs: [Speech Service](https://docs.microsoft.com/azure/cognitive-services/speech-service/) , [Bing Speech API](https://docs.microsoft.com/azure/cognitive-services/speech/home), [Translator Speech](https://docs.microsoft.com/azure/cognitive-services/translator-speech/), [Speaker Recognition API](https://docs.microsoft.com/azure/cognitive-services/speaker-recognition/home)
    - Language APIs: [Bing Spell Check](https://docs.microsoft.com/azure/cognitive-services/bing-spell-check/), [Language Understanding LUIS](https://docs.microsoft.com/azure/cognitive-services/luis/), [Text Analytics](https://docs.microsoft.com/azure/cognitive-services/text-analytics/), [Translator Text](https://docs.microsoft.com/azure/cognitive-services/translator/)
    - Knowledge APIs: [QnA Maker](https://docs.microsoft.com/azure/cognitive-services/qnamaker/index)
  + [Bot Services](https://docs.microsoft.com/en-us/azure/bot-service/?view=azure-bot-service-4.0)
  + [Notebooks](https://docs.microsoft.com/en-us/azure/notebooks/)
  + [Databricks (Spark based Analytics Platform)](https://docs.microsoft.com/en-us/azure/azure-databricks/what-is-azure-databricks)
  + [Data Science Virtual Machines](https://docs.microsoft.com/en-us/azure/machine-learning/data-science-virtual-machine/overview)
  + [Deep Learning Virtual Machines](https://docs.microsoft.com/en-us/azure/machine-learning/data-science-virtual-machine/deep-learning-dsvm-overview)