# Fundamental Components of an Organization's Tech Stack

# A comprehensive tech stack is critical in building and sustaining generative Al systems

### **MACHINE LEARNING FRAMEWORKS**

• Frameworks (eg. TensorFlow) can offer tools, APIs, and pre-built models for image, text, and music generation, allowing customization for accuracy and quality

#### PROGRAMMING LANGUAGES

• Languages (eg. Python, R, and Julia) that are simple yet widely used are critical to building and sustaining generative AI models and systems

#### **CLOUD INFRASTRUCTURE**

• Cloud infrastructures (eg. AWS, GCP, and Azure) have tremendous computing power efficiency and storage, while providing scalability and flexibility for virtual machines, storage, and machine learning platforms

## **DATA PROCESSING TOOLS**

• Data preprocessing and cleaning tools (eg. Apache Spark and Apache Hadoop) can be used to parse through large amounts of data efficiently, providing data visualization and exploration to identify patterns