



Boosted search accuracy by 80% for a US manufacturing OEM with AI-powered product discovery

Combined NLP and image recognition enabled faster, accurate product discovery at scale

Client overview

A USA-based leading Original Equipment Manufacturer (OEM), that delivers high-quality fasteners, stampings, castings, and assemblies to a broad industrial customer base. With a vast portfolio spanning millions of products and an extensive vendor network, the company plays a crucial role in supply chain efficiency and custom manufacturing solutions for global clients

Business challenges

- Manual searches slowed response times and increased workload
- High risk of errors in linking images to product records
- Traditional keyword searches lacked context and accuracy
- No support for image-based or combined text-image search queries
- Struggled to scale search across millions of vendor-supplied SKUs

Solution delivered

- **AI-Powered Search:** Combined NLP and image recognition for accurate data retrieval
- **Smart Image Mapping:** Used AI embeddings to auto-match images with product data
- **Azure-Powered Architecture:** Leveraged Azure AI Search, Data Factory & Computer Vision
- **User-Centric Interface:** Delivered a seamless, intuitive search experience

Impact

-  **90%** reduction in manual effort for product search and mapping
-  **80%** increase in search speed and accuracy
-  **75%** improvement in overall operational efficiency
-  Elevated customer satisfaction through faster, more precise quote responses