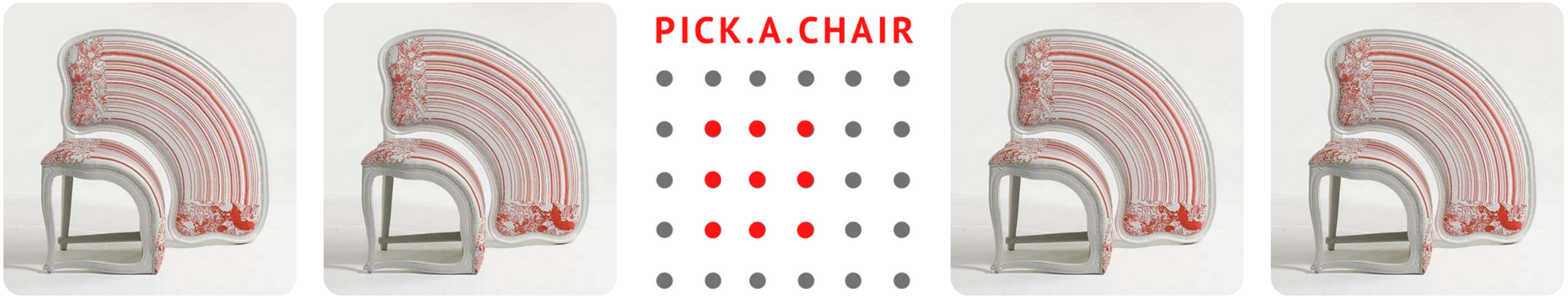


Deep learning based reverse image search

Bahar Biazar

Problem and Motivation

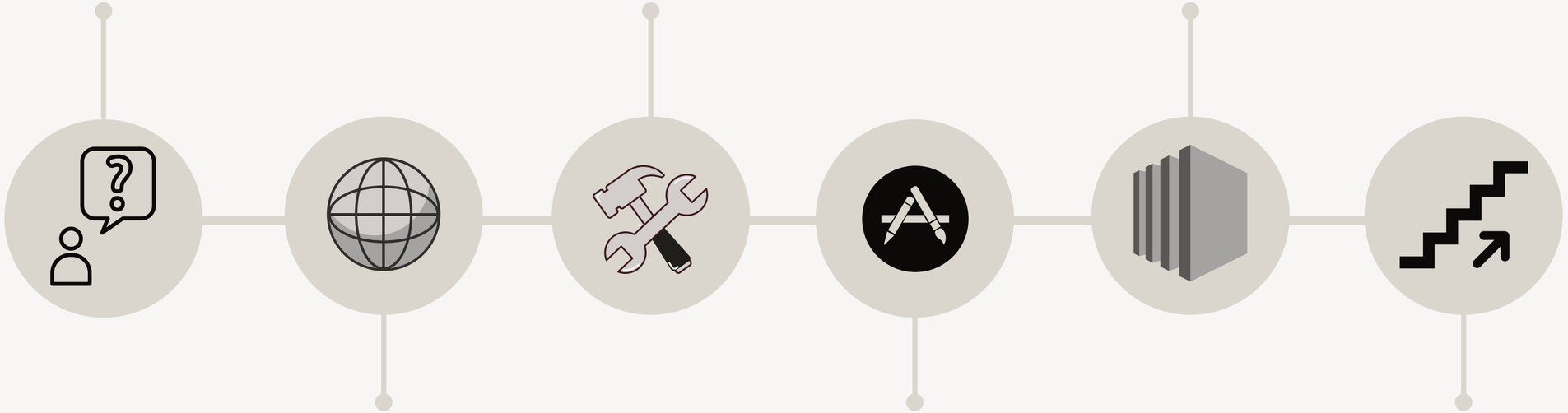
Database

Search Engine

Flask App

AWS Deployment

Improvement



problem and motivation

- Refine Furniture Searching
- Save Time
- Save Money

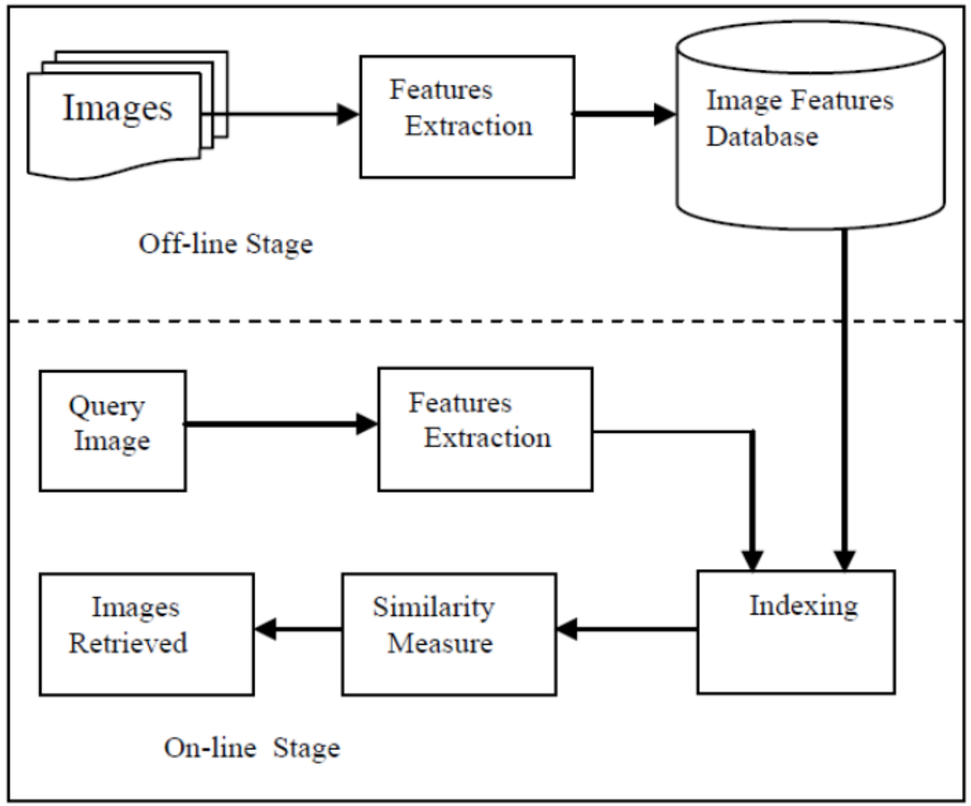
database

+ 9000 images of chairs scraped from wayfair.com inventory

search engine

- Building feature extractor
- Extracting features from image database
- Analyzing new target image
- Calculating the similarities with all images
- Retrieving the most similar results

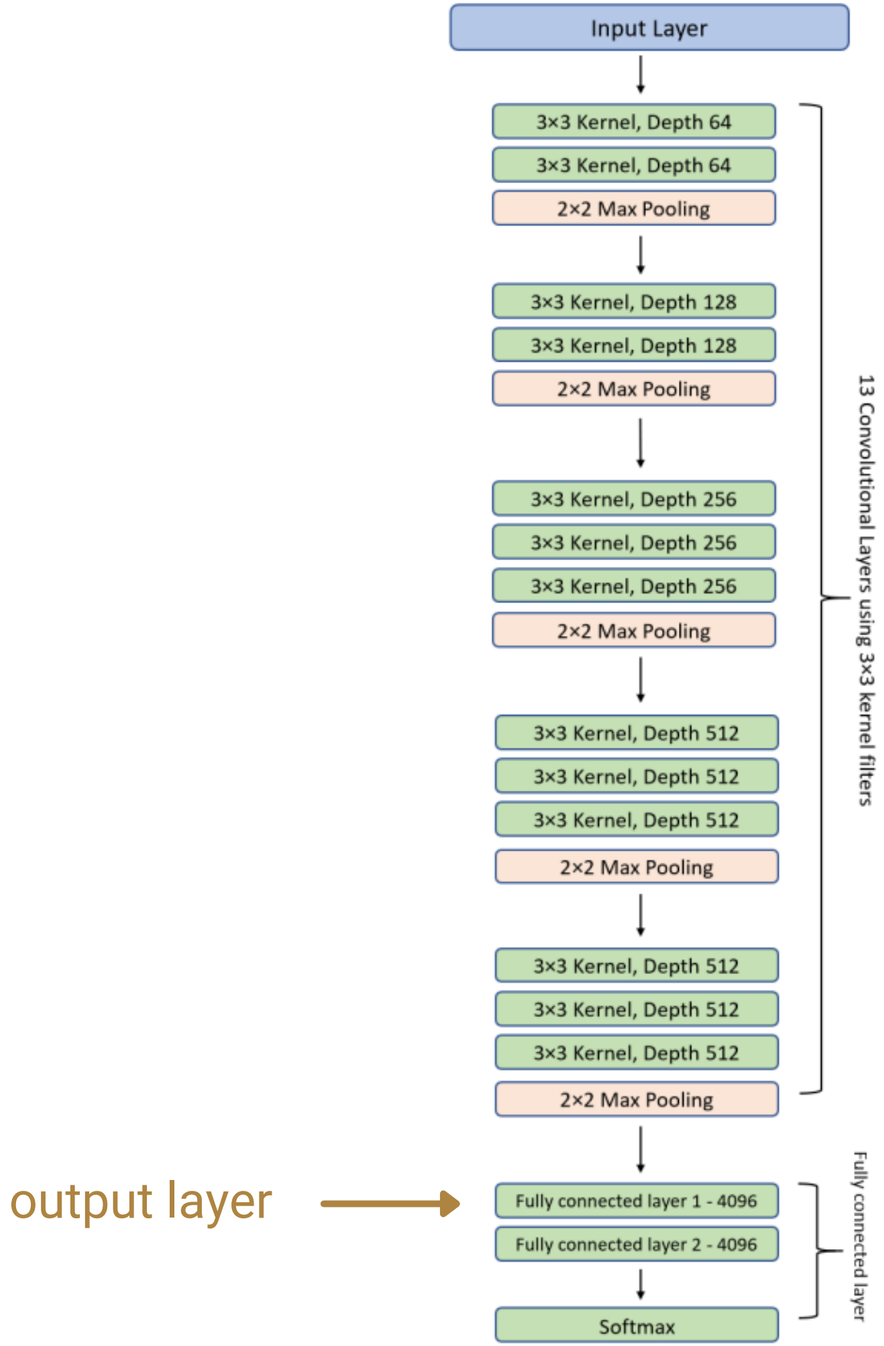
Content-based image retrieval (CBIR):
A system for retrieving relevant images based on a given image



Flow of The CBIR (Alkhawlani et al. 2015)

VGG16

feature extraction algorithm
pre-trained weights from
ImageNet



query image

restorationhardware.com

search results

similarity measures based on euclidean distance

web app

http://50.18.139.230:5000

PICK.A.CHAIR

next steps

- Expand the database
- Update the database regularly
- Try other feature extraction algorithms

get in touch

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