AxcelerateAI

Leverage state-of-the-art AI technologies to drive your business

Do you want to **empower** your business with **AI-driven** solutions?

We **build** custom AI **solutions tuned** for your business.

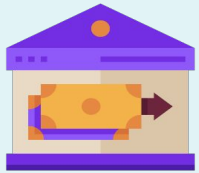
Our Industries

Industry 4.0

- Industrial Automation
- Predictive Maintenance
- IoT and Big Data Solutions

Media

- Brand Exposure Detector
- Recommendation Engines
- Best Matching Influencer Insight



Accounts & Finance

- Loan/Contract Credit Approvals
- Financial Product Recommendation
- Client-facing Chatbots

Wealth

- AI based Portfolio Management
- Intelligent Trading Bots
- Risk Assessments and Correlations

Content Creation

- Video summarisation
- Creating content with help of AI

Cyber Security

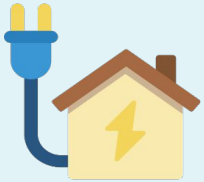
- Intrusion Detection System

Telecom

- Individualized Packages
- Predictive Maintenance
- Load Balancing System
- Self-healing Network

Healthcare

- Disease Prediction
- Anomaly Detection CV
- Test Recommendations



Utilities

- Smart Power Grids
- Appliance Monitoring
- Utility Optimization

E-commerce

- Recommendation Engine
- No-code APIs

Our Domains

Computer Vision

Image classification and tagging
Image segmentation
Object detection and tracking
Video classification
Optical character recognition (OCR)
Image enhancement
Facial recognition and modelling
Pose estimation
Image-to-image translation
Visual question answering
Image captioning
Anomaly detection
Activity recognition
Image retrieval
Style transfer

Natural Language Processing

Text classification and tagging
Named entity recognition (NER)
Dependency parsing
Information retrieval and extraction
Invoice reader
Translation
Sentiment analysis
Semantic textual similarity
Part-of-speech tagging
Abuse detection
Document classification
Document parsing
Text clustering
Intent detection
Paraphrasing

Recommender Engines

Sequential recommendation
Session-based recommendation
Knowledge-aware recommendation
Collaborative filtering
Content-based filtering
Demographic-based filtering
Knowledge-based systems
Hybrid recommender systems
Convolutional matrix factorization (CMF)
Deep matrix factorization (DMF)
Reinforcement learning-based recommenders

Our Domains

Generative Models (Computer Vision)

Stable diffusion
ControlNet
Dreambooth
Style transfer
Scene generation
Video generation
Text to image generation
Image inpainting
Face generation
3d reconstruction

Generative Models (Natural Language Processing)

Text generation
Conversational AI
Question answering
Code generation
Prompt engineering
Large language models
GPT, ChatGPT, GPT-NeoX
AutoGPT, LangChains
LLaMA, LlamaIndex

Predictive Forecasting

Time series analysis
Time series classification
Predictive maintenance
Regression analysis
ARIMA, SARIMA
Imputation
Activity prediction
Time series anomaly detection
Time series clustering
Load and traffic monitoring
Time-to-event prediction
Trajectory modeling

Our Machine Learning Tech Stack

Data Engineering

Collection

Annotation

Visualisation

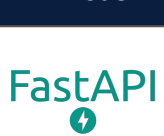
Machine Learning

Frameworks & Toolkits

Model Training

Machine Learning Operations

Model Integration



Model Deployment

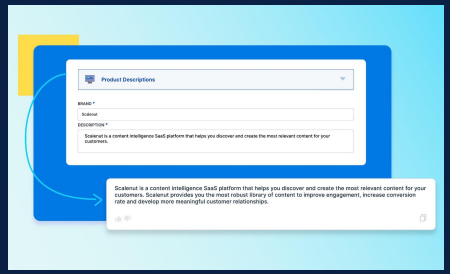
Continuous Integration / Deployment

PropTech

Selected Case Studies

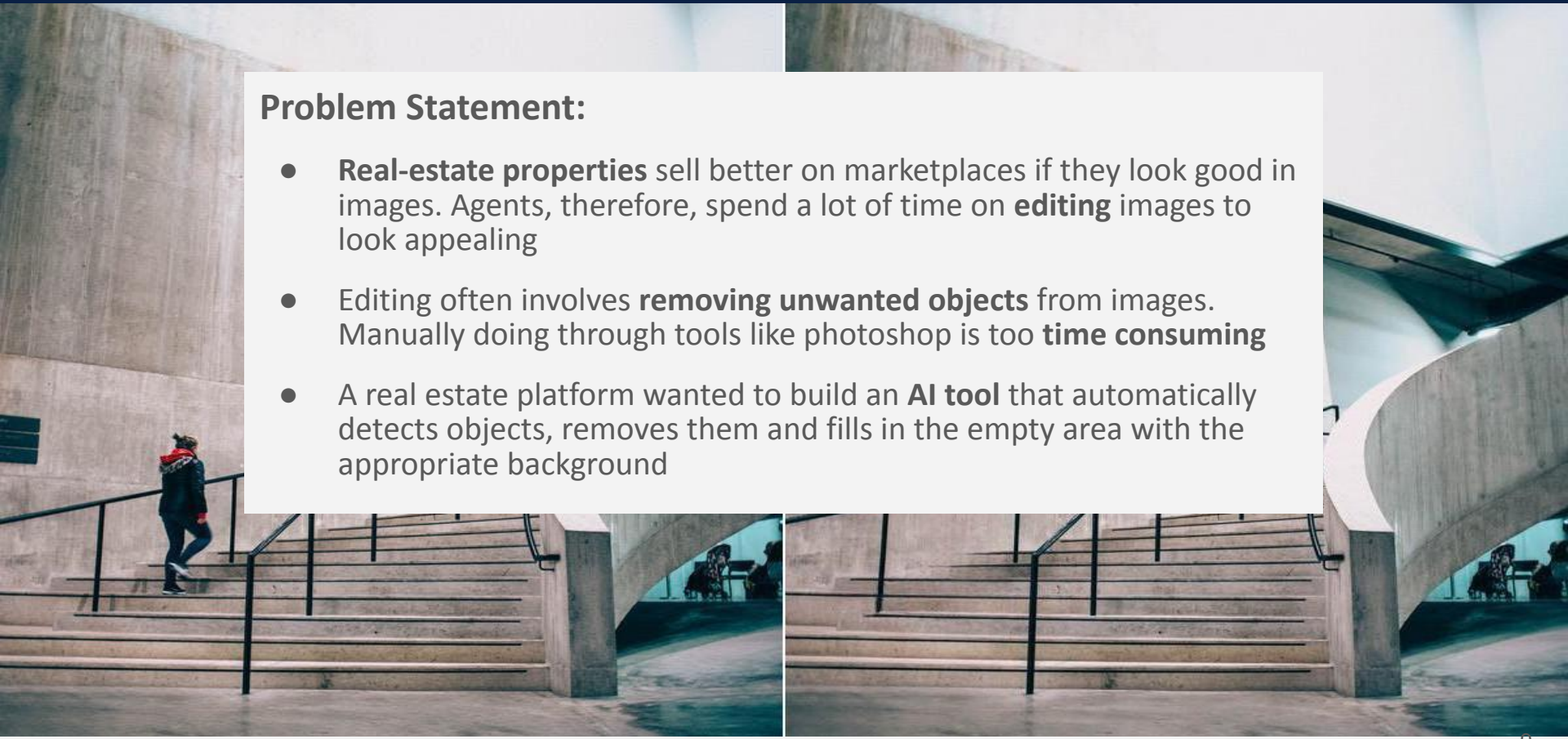
Object Removal

Virtual Staging



Property Description Generator

Object Removal



Problem Statement:

- **Real-estate properties** sell better on marketplaces if they look good in images. Agents, therefore, spend a lot of time on **editing** images to look appealing
- Editing often involves **removing unwanted objects** from images. Manually doing through tools like photoshop is too **time consuming**
- A real estate platform wanted to build an **AI tool** that automatically detects objects, removes them and fills in the empty area with the appropriate background

Object Removal

Salient Features:

- State-of-the-art **object detection models** for detecting all objects that appear in the image
- Faithful reconstruction of the background behind the object removed
- The AI system preserves **visual coherency**
- Additionally the AI system preserves **fine details** and **textures** in the image
- Near real-time running times

Input image - that contains two chairs and a table.
Output image - the object removal system removes one chair and faithfully replaces it with the background

Virtual Staging

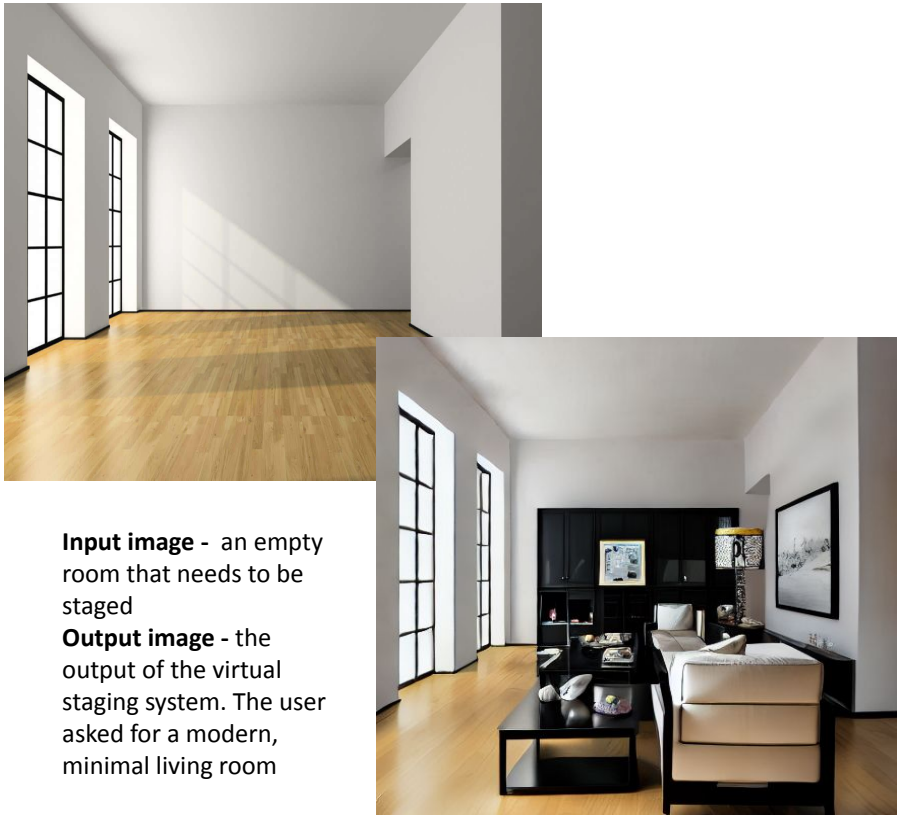
Problem Statement:

- **Interior designers** virtually stage images to showcase different **design themes** to their clients
- Virtually staging through image editing softwares like Photoshop is **time consuming**
- A real estate platform wanted to build an **AI system** that can **automatically** stage **empty rooms**
- We built a system using **generative AI technologies** that is able to virtually stage rooms in accordance with **user preferences** such as **design theme**, **furniture** to add, **flooring** and **ceiling** type

Virtual Staging

Salient Features:

- **Photo-realistic** and **appealing** outputs
- Allows users to **customise** designs by selecting from a wide variety of **room** types, **design** themes, **flooring** and **ceiling** types and **furniture** to add
- Faithfully **preserve** the **structure** and **layout** of the room
- State-of-the-art **generative AI** technologies
- Near **real-time** running times



Input image - an empty room that needs to be staged
Output image - the output of the virtual staging system. The user asked for a modern, minimal living room

Property Description Generator

Problem Statement:

- Real estate platforms require property sellers to upload descriptions of their properties
- Writing captivating property descriptions is hard
- A real estate platform wanted to make this easier for their users by building and AI-based copywriting engine that can automatically generate descriptions from property images
- We built an AI-based system that first extracts different attributes of a property from its images and then writes a captivating description

Property Description Generator

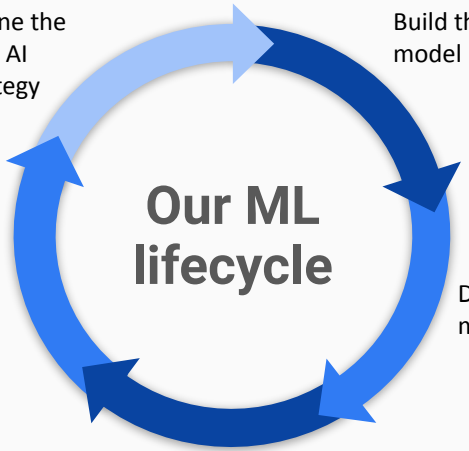
Our Solution:

- A user **uploads images** of a **property** (e.g., images of rooms, front, backyard etc.)
- Several **computer vision** models **extract** different types of information from the images such as the **architecture style, number of rooms** and the **amenities available**
- The extracted information is fed to **ChatGPT** which then writes a description for the property
- Efficient **prompt engineering** of ChatGPT ensures that it produces accurate and engaging property descriptions

Company Profile

About Us

We empower organisations with state-of-the-art artificial intelligence technologies which can significantly reduce internal operating costs and add more value to products and services



We handle your entire end-to-end AI transformation

2+
Years in Operation

20+
Team Size

50+
Projects Executed

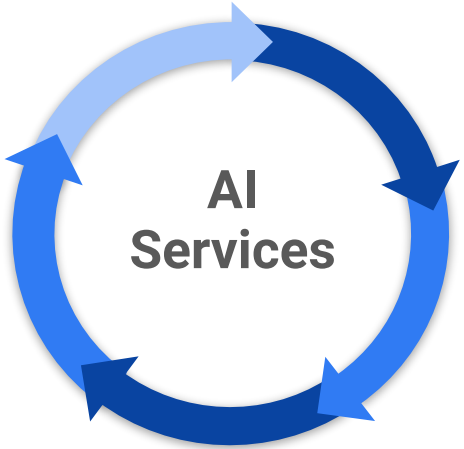
150+
AI Models Trained

Our Clients

We have helped dozens of organisations including

embrace the AI revolution

Artificial Intelligence Capabilities



3+ Years

of experience in helping businesses **axcelerate** their AI transformations

Computer Vision

Generative Models

Recommender Engines

Natural Language Processing

Predictive Forecasting

Machine Learning Operations (MLOps)

Thank You

Let’s Connect

E-mail
hello@axcelerate.ai

Website
https://www.axcelerate.ai/

Phone & WhatsApp
+92 314 424 5425