

More than 2.5 years of experience with projects built for domains across Agri, Strategy, Internet of Things, and International Operations. Fluent in Python and knowledgable in Computer Vision along with experience in designing and implementing Restful APIs

Skills

Languages: Python, Javascript, HTML5, SASS/CSS3

Version Control: Git

Domains: Computer Vision, Natural Language Processing

OS: Windows, Linux

Frameworks: Django, Flask, Dash/Ploty

Databases: SQL, PostgresSQL

Cloud: Azure

Work Experience

Associate Analyst Mahindra & Mahindra Ltd

October 2018 - Present

Image Recognition - Agri

Business Problem: To provide crop care solutions without the need of an expert with the help of Artifical Intelligence by diagnosing images of the crops the farmer clicks

Tech stack: Python, CNN, Django, REST APIs, Keras Approach & Responsibilities

Network) models using transfer learing to increase farm productivity by providing real-time expert crop care solutions to farmers right on their smartphones via android application

Solution: Developed CNN(Convolutional Neural

- Built an Object Filtering model using inception_resnetv2 to filter out non-crop images
- Built CNN models for 21+ crops and 300+ categories using transfer learning and deployed them to android applications through Django's REST APIs secured with JWT
- · Designed and Implemented backend to deploy these models on an android application using APIs

AINAC - Automated Agri Image & Analytics Console - Agri

Business Problem: Delay in adding new categories (diseases or pests or disorder or deficiency) to the Image Recognition algorithm as long as 30-40 days

Solution: Built an inhouse Image Tagging Tool(Web App) bringing about 6x reduction in operating cost of about 65L and 11x improvement in efficiency for tagging new images taking about 7 days

Tech stack: Python, Flask, SQL, HMTL, CSS

Approach & Responsibilities

- Automated transfer of images from Cloud to On-premise server to t-1 days and set-up an FTP for ease of access and real-time tagging of images
- Built an Image Tagging Tool(Web App) using Python framework Flask and SQL for real-time tagging of images with features like Login, Concurrency, Undo, Admin view, etc

Competitive Intelligence - Strategy

Business Problem: To pick up on early trend signals and start devising solutions before the signals become mainstream

Solution: Pick up articles from various News and Social Media sources apply NLP and score them into buckets

Tech stack: Python, Selenium, Flask

Approach & Responsibilities

- Developed a scrape to scrape news/article from various news and social media sources, processed the scraped news/articles using NLP and scored them into pre-defined buckets based on keywords appearing in the news/article
- News/articles passing a certain score threshold were automatically sent to the business

Dealer Location - International Operations

Business Problem: Find appropriate locations in the USA for MAGNA (Mahindra Agriculture North Ameria) to open Tractor dealerships to gain market share

Solution: Scrutinize the market share and dealerhip locations of competitors

Tech stack: Python, Folium, Selenium

Approach & Responsibilities

• Studied the market share of tractors for all the states in the USA and along with locations of all the dealerships and drew out certain hypotheises for Mahindra's Leading/Lagging tractor sale in certain states

Krish-E Smart Kit - IoT

Business Problem: Farmers who rent out their tractors face several problems like theft of diesel, the borrower doing additional work than agreed upon, etc

Solution: Attach an IOT device into the Tractors to transmit data back to our servers and update details on an android application on which the farmer can view his/her tractor status in real-time

Tech stack: SQL, PostgresSQL Approach & Responsibilities

 Analysed the data and built several dashboards in context such as: Tractor usage, Revenue, Orders, Implement rental, Capex; highlighing KPIs to provide the stakeholders complete visibility of the business and help make further decisions

Achievements

Mahindra Rise Awards Level 1 Winner (2020) Guest Lecturer at AFP Program for internal upskilling (2019)

Certificate of Appreciation (2019)

For the Image Tagging Tool

Lecture on CNN and its applications to leadership level audience

For excellent contribution on Image Recognition

Education

Bachelor's in Engineering *Univesity of Mumbai*

2014 - 2018 CGPA: 7.76

Interests

Weightlifting Stock Market Music Production