
PROFILE SUMMARY

Skilled in Deep Learning, Machine Learning, Computer Vision and Python. Currently, working on gathering data with exploratory and descriptive analysis of dataset and customizing, training and integrating deep learning models according to business requirement. Working in the field of Artificial Intelligence and Machine Learning for 5 years.

SKILL SET

Machine Learning - Regression Techniques (Linear Regression, Multivariate Regression), Classification Techniques (Support Vector Machines, Naive Bayes), Clustering(K-Means)

Deep Learning - Convolutional Neural Networks (CNNs), Fully-CNNs, Recurrent Neural Networks (RNN) with LSTMs

ML Frameworks - Tensorflow, Keras

Programming Language - Python, C++, Java

Libraries - Numpy, Pandas, OpenCV, Matplotlib, Scikit-Learn

Software Tools – Jupyter Notebook, Anaconda

Web Technologies - Flask, Angular 6, HTML, CSS, JQuery

EXPERTISE

Python , TensorFlow, Keras, OpenCV, Transformers

PROFESSIONAL EXPERIENCE

FIRST AMERICAN INDIA

Senior R&D Engineer - April 2020 - Present

- Total Experience of 1 year working on Developing a product with capabilities of Extraction of information and Classification over legal documents. Learning the knowledge of product development deploying Solution on Azure cloud.

GRAMENER

Data Scientist - Feb 2019-April 2020

- Total Experience of 10 Months working on Natural Language Processing and Computer Vision Projects.
- Worked at Applied Materials Client Location and Involved in Computer Vision Classification and Clustering Projects for Semi-Conductor Images.

INFOSYS PVT. LTD.

Senior Systems Engineer- Jan 2016-Jan 2019

- Total Experience of 2.9 years working in Infosys R&D Department. Worked on Various Image Analytics Projects which involved various Deep Learning Models and Computer Vision Techniques.
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PROJECTS

PRODUCT FOR CLASSIFICATION, SPLITTING and EXTRACTION OF LEGAL DOCUMENTS - FIRST AMERICAN INDIA (APRIL 2020 - MARCH 2021)

- Designed a Python AI/ML services for NLP Tasks like Classification, Extraction and Splitting a Package of Legal Documents .
- Utilized State of the Art models like BERT for Information extraction based on NER methodology.
- Designed the architecture for the entire AI/ML services utilizing the micro services concepts.

DEFECT CLUSTERING FOR SEM IMAGES - GRAMENER (OCT 2019 - FEB 2020)

- Built a Pipeline that would be able to Cluster SEM (Scanning Electron Microscope) Defect Images.
- Designed an Architecture that would take a set of defect images as input and then Cluster the defects based on the similarity between them.
- The architecture involved Feature Extraction using Resnet50 Pre-trained Model (Transfer learning), Hierarchical Clustering, Outlier Removal and Cluster improvement by identifying Weak Clusters and Sub-clustering them.

DEFECT CLASSIFICATION FOR LASERTEC IMAGES - GRAMENER (MARCH 2019 - AUG 2020)

- Built a Pipeline that would be able to classify Lasertec Images (Semi-Conductor Domain) between Pit and Particle
- The Pipeline Involved performing various image enhancement like de-noising an image (Non-Local Mean), Image Normalisation, Feature Extraction (GLCM Features) and Finally Classification Using SVM.

SENTIMENT ANALYSIS ON CUSTOMER REVIEWS - INFOSYS (AUG 2018 - JAN 2019)

- Worked on sentiment analysis on customer reviews at Sentence level using Language Model Like BERT and ELMO.
- Used various sentence breaking methodology to get uniform polarity for one sentence.

SEWAGE PIPE ANALYSIS SYSTEM - INFOSYS (MAY 2018 - JULY 2018)

- Working in a team for Analyzing Sewage Pipelines for different types of fault using Machine Learning/ Deep Learning and Computer Vision.
- Used Machine Learning Technique Support Vector Machines to build a classifier that detects faults and then fed the classifier to sliding window algorithm to identify faults.
- Developed Deep Learning model for pixel level classification of fault using a Fully Convolutional Neural Network (Semantic Segmentation).
- Used various Computer vision techniques like Morphological operations, Sobel Edge Detection for various purposes.
- Build the Entire system using Flask and Angular 6.

RETAIL VISION - INFOSYS (SEPT 2017 - APRIL 2018)

- Worked on Products Module in Retails Analytics Project where we had to perform various stock analysis on the different products that are available on a rack.
- Implemented various use cases for stock analysis using techniques like YOLO for Object detection and classification.

SEMANTIC SEGMENTATION, TRAFFIC SIGN CLASSIFIER & VEHICLE TRACKING - INFOSYS (APRIL 2017 - AUGUST 2017)

- Finding the drivable portion of the road using Fully-CNN. The solution involved a pixel level classification of the drivable region of the road.
- Identifying the various traffic signs using LE-Net Architecture and then verifying it on the test set.
- Identifying the vehicles on the road by using SVM, feature extraction and a sliding window search to find the vehicles.

