

Deepak Ravikumar

(+91)893-918-2217 | deepak.060593@gmail.com | deepakravi.github.io | LinkedIn.com/in/positivedeepak/

Education

Anna University

BACHELOR OF ENGINEERING IN PRODUCTION ENGINEERING, GPA: 7.8/10

India

July 2011 - May 2015

Skills

Machine Learning

Logistic Regression, Decision tree, Random Forest, Gradient Descent, PCA, KNN, Naive Bayes, SVM
CNN, Faster RCNN, UNET, RNN, LSTM, YOLO models, Attention models (BERT, Siamese Networks)

Deep Learning

E-commerce, Supply chain, Healthcare, Geospatial

Domains

Languages

Python, VBA, C++, HTML, CSS, JavaScript, SQL, Pyspark, Selenium

DataStores

MySQL, DynamoDB, PostgreSQL, AWS S3, RedShift

Frameworks

Flask, Streamlit, TensorFlow, PyTorch, Keras, OpenCV, Pandas, NumPy, Matplotlib

DevOps

Docker, Kubernetes, Terraform, AWS CDK

Tools

Git, Github, Jira, Azure Devops, Heroku, VS code, Jupyter Notebook

Cloud

AWS (Pursuing Machine Learning - Speciality certification at CloudGuru), Azure

Experience

Techmango Technologies

April 2020 - Present

SENIOR DATA SCIENTIST

- Having real-time work experience in using more than 15+ services in AWS cloud like Lambda, Eventbridge, Stepfunction, EMR, ECR, SNS, SQS, Glue, Secrets Manager, RDS, RedShift, S3, Athena, SageMaker.
- Worked on distributed systems using Spark for transforming terabytes of raw data into useful data.
- Have experience in end-to-end ML pipeline automation using MLOps frameworks and also have experience in CI/CD pipelines using GitHub actions.
- Deployed many ML applications by containerizing it using Docker and created custom models in ECR.
- Analyzed and reduced the cost of AWS glue by 90% using CloudWatch Metrics and SparkUI.
- Migrated memory-intense glue jobs to EMR to save overall cost by 95%.
- Created multiple chatbots using RASA NLP framework for IKEA client and deployed in Azure cloud.

Amazon.com

November 2015 - March 2020

APPLICATION ENGINEER

- Developed an web application using Flask for multiple projects such as Face Recognition, Activity Recognition & Number plate detection.
- Responsible for creating various AWS resources and developed a complete end-to-end ETL framework using AWS services.
- Designed, implemented and evaluated models to solve problems in computer vision like image classification, object detection & segmentation.
- Responsibilities includes initial research, planning the project, designing the product, creating ML models, and testing & productionizing.

Project

I2P pricing Model (Livingston Int.- Canada)

September 2022 - Ongoing

TECH STACK: AWS(SAGEMAKER, S3, EVENTBRIDGE, IAM, ECR, EC2), PYTHON, JUPYTER NOTEBOOKS

- Objective is to create a model to predict prices based on clients and the number of products/shipments they clear through customs.
- We analyzed the data using EDA techniques and followed all data pre-processing steps like feature scaling, encoding, handling missing and duplicates values, multi-collinearity & handling data skewness.
- We used Sagemaker in-built algorithms like Linear Learner, XGBoost & MLP to train the ML model and finalized with XGBoost model.
- Built an Sagemaker Endpoint which will copy the model(tar) file from s3 to ECR(ec2) to start running the inference.

E-commerce Chatbot (IKEA - Dubai)

TECH STACK: AZURE, PYTHON, RASA FRAMEWORK, FLASK, HTML, CSS

- Objective is to create a chatbot for E-commerce client.
- Created a chatbot using RASA framework which is a popular framework and it is built to handle multiple queries from customer like product selection, order placement, order status etc and finally deployed using Azure cloud.

Body Image Classification (Amazon.com - California)

January 2019 - March 2019

TECH STACK: PYTORCH, PYTHON, HTML, CSS, BOOTSTRAP, FLASK, DOCKER

- Objective is to classify image of person into 3 different category like fat, slim or muscled.
- As this is multi-class classification problem based on image, we went with CNN with resnet50 architecture with crossentropy loss.
- We could able to achieve f1-score about 0.85 which looked good.
- We finally built a flask app which takes input of an image & classifies image into fat/slim/muscled and outputs as JSON.

Browse Node Classification (Amazon.com - Bangalore)

May 2018 - July 2018

TECH STACK: KERAS, PYTHO, FLASK, HTML, CSS, BOOTSTRAP, HEROKU, DOCKER

- Objective to identify browse nodes based on the image and text.
- Created 2 models - one for predicting image using CNN technique and outputs a category like shoe/apparels/bags.
- Another one for predicting text using Natural language processing and outputs a category like shoes/apparels/bags.
- Combining 2 outputs and based on accuracy percentage, we identify the category of product.
- Once we identify the category, we can use browse node dump to find browse nodes for that particular category.

Achievements

- 2021 **Awards**, Received Star Performer Award for Overall performance at Techmango Technologies.
- 2020 **Hackathon**, Secured 3rd prize in Ramco systems hackathon event and got featured in TheHindu Newspaper
- 2018 **Awards**, Received Einstein Award for Automating manual tasks using Python at Amazon.com

India

India

India