Shashank Tanwar

Associate Consultant - EY

Data Science professional skilled in Predictive Modeling, Machine Learning and Deep Learning. Having 2.5+ years of core analytics experience in insurance domain, building and deploying end to end ML models, AI solutions and automation pipelines. Creative and passionately curious AI and Tech enthusiast with great zeal to keep learning and building new things that brings real business value with tangible results.

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New Delhi

stark10war.github.io/shashank-portfolio/

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SKILLS

Algorithms : Linear & Logistic Regression, Bagging, Boosting, Clustering, forecasting, Deep learning, Neural Networks, CNN

Languages and Tools: Python, SQL, SAS, R, Tableau, Advance Excel

Frameworks : Pandas, Sklearn, H2O, Flask, OpenCV, Tensorflow, Keras, Web Scraping, YOLO, Facenet

Familiar Technologies: Git, Unix, AWS Lambda ,EC2, DynamoDB, Docker, Spark ,Hive

AWARDS AND CERTIFICATIONS

- Kudos Award - (EY)
- Deeplearning Specialization - (Deeplearning.ai)
- Python Certification - (HackerRank)
- Rest API Certification - (Hacker Rank)

WORK EXPERIENCE

Associate Consultant
EY (Ernst & Young)

03/2019 - Present — *Gurgaon, Delhi NCR*

Project Engagements with India's leading Life Insurer

- **EmailBot Intent Prediction:** Built an Email Intent prediction solution for customer support team which can classify 50 different intents in an email using RASA and dialogflow. The AI solution enabled automatic reply to customer queries on emails, helped reducing CS team's bandwith in assigning tickets to resolve queries and improved overall customer experience. Attained accuracy of over 84%. Deployed as API using AWS lambda
- **Underwriting Risk Models :** Developed complex Machine Learning Ensemble Models on 4 crucial sourcing channels , that predicts Mortality risk across policies at proposal level with rare events (rate< 1%). Attained capture rate of over 60% across channels. Used H2O and AutoML to build faster model development pipeline.
- **Risk Scoring API:** Created an API in flask to deploy 5 underwriting risk models in a single API for real time scoring enabling underwriters to take guided decisions and reduce the turnaround time in policy issuance. Also helped IT team in designing an efficient Cloud deployment approach for the API.
- **Automatic Document Verification (OCR):** Built a Deep learning based document classification and OCR solution. Trained YOLO3 object detection models on PAN and Aadhaar card images to crop and classify required text entities. Deployed the solution as API enabling document validation during upload, reducing manual efforts.
- **POS Verification with Face Match and Liveness Detection:** Built an AI solution for Point of sale verification of customers to minimize fraud issuance and missell by Agents. Implemented Facenet deep learning model to build a face match algorithm capable of learning with a single photo. Built a Liveness detection system by analyzing variation in facial expressions, mood and eye blinks.
- **Model Monitoring and Performance Evaluation:** Creating Dashboard/Deck tracking model performance on monthly basis. Evaluating key KPI of all ML models and sharing insights with business stakeholders.

Junior Data Scientist
Innovizant Analytics

09/2018 - 02/2019 — *Noida, Delhi NCR*

Achievements/Tasks

- Worked with Big Data tools like Hadoop, Hive and Spark for data preprocessing on Spark Clusters.
- Data Workflow Migration from Python to R. Replicated data processsing pipeline from Pyspark environment to SparkR.
- Provided assistance in Automating Cloud instance deployment and workload execution based on Event Triggers on Microsoft Azure Cloud.

AI INITIATIVES/PROJECTS

P&G Global Innovation Challenge, HackEarth

- Built a prototype of smart shelf health monitoring system to track inventories in real time and predict OOS upfront. Used computer vision and Deeplearning CNN model to detect empty voids in the shelf and estimate stock density to predict out of stock. Ended up in top 15 teams (out of 1500) to present solution for final selection.
- *Demo Video* : https://youtu.be/_19GbPOtQG0

Doodle.ai

- Draw to text and speech Built a fun doodling tool while learning computer vision. The User can draw alphabets/objects in air in front of the camera using any object of selected color. Built a CNN using keras that predicts the alphabets/shapes to form continuous sentences.
- *Demo Video* : https://youtu.be/S-vIBtbwmuQ

Home Automation + Dialogflow Chatbot

- Built an IOT solution for home automation using recently developed MicroPython language and NodeMCU microcontroller. Created a Dialogflow chatbot to query with voice/text.

EDUCATION

B.A (Hons.) Economics
Delhi University, ARSD College

2013 - 2016