ADITYA TOTLA

Machine Learning Researcher &
Developer

PERSONAL INFORMATION

4 years of experience in Data Science and AI, adept at solving real-world problems with expertise in Machine Learning and Deep Learning. Seeking challenging opportunities in an organization that leverages my potential, enhances my current knowledge, and cultivates my analytical and technical skills.

WORK EXPERIENCE

AUG 2022 - Present
Ahmadabad, G.J.

AI/ML ENGINEER

Injala Pvt. Ltd. (Start-up)

- Working on Document AI using LLMs and computer vision architectures for SaaS product.
- Responsible for debugging, training, testing, deploying model using Azure DevOps CI/CD pipeline and also server management.
- Prepared dataset & fine-tuned for LiLt, LayoutLM series & CNN models for document and token classification. Optimizing model by converting it to ONNX format.
- Merging multiple APIs & deploying model as REST APIs into production server. Accelerated model inference time by leveraging batch sizes and multi-threading techniques.
- Trained peers and interns in AIML & product understanding, handling US client meetings, and reporting progress to senior management.

NOV 2020 – JUL 2022
Mumbai, M.H.

AI/ML ENGINEER

iAcuity Fintech Pvt. Ltd. (Start-up)

- Worked independently with organization heads for addressing financial data problems, adding new features & enhance existing application.
- Conducted R&D in computer vision, creating a structured pipeline for automated data extraction from financial statements of 25+ banks. Generate interactive charts for in-depth analysis of potential money laundering frauds.
- Elevated NLP expertise from data engineering to train models for Custom Entity Extractor on Transaction Descriptions.

JAN 2020 - NOV 2020
Indore, M.P.

DEEP LEARNING RESEARCHER & DEVELOPER

Tech Driven Basic (Start-up)

- Worked extensively with data modeling to solve real-life problems by researching & reading AIML research papers regarding problems and implementing it into well-structured code.
- As team lead, I oversee client meetings, address business issues, and implement solutions with my team.

OCT 2019 – DEC 2019
Indore, M.P.

Machine Learning Intern

Yuvasoft Solutions Pvt. Ltd.

- Conducted comprehensive data analysis, encompassing tasks such as data cleansing, manipulation, and visualization using tools like Matplotlib. Additionally, developed a Tableau dashboard for enhanced data presentation.

EDUCATION

2018 – 2019
Noida, U.P.

PGDM - BIG DATA ANALYTICS
Centre for Development of Advanced Computing (CDAC, Noida)

2013 – 2018
Indore, M.P.

BE - ELECTRONICS & COMMUNICATION ENGINEERING
RGPV

2012 – 2013
Ujjain, M.P.

HIGHER SECONDARY SCHOOL
MATH's
CBSE

DEVELOPMENT SKILLS

- Python
- PyTorch
- Open- CV
- TensorFlow 2
- Py-Tesseract
- Flask
- SQL & NoSQL
- Tableau

SOFT SKILLS

- Peer Mentoring
- Sound knowledge of latest technology
- Active Learning
- Adaptable
- Proficiency in communication & interpersonal skills

CERTIFICATIONS

- Deep Learning Specialization - Coursera
- Deep Learning Fundamentals - IBM
- Machine Learning with Python - IBM
- Data Analysis with Python - IBM

ACHIEVEMENTS

- Passed LinkedIn skill assessments in Machine Learning, R, MySQL, MongoDB, and OOP.
- Inter College Rapid Chess Champion is given by All India Indore Chess Association

CONTACT

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PROJECTS

➢ NLP - Natural Language Processing

1. Document AI (Injala)

Brief: Classifying required pages from PDFs and Parsing information from those unstructured Policy and Insurer forms using Large Language Models and Computer Vision.
Created Rest API using Flask and deployed on AWS Server.
Tools: BERT, LLMs, VGG16, LabelImg, RE, EC2, Flask, Rest API, Postman.

2. Automating Ledger Narration Entity Extraction (iAcuity)

Brief: Automated Entity extraction manual process like mode of transactions, first and other party name by Bert-NER architecture.
Tools: NLTK, NER, Docanno Annotation tool, RE, Numpy, Pandas, etc.

3. Sentiment Analysis of Amazon Customer Reviews (Kaggle)

Brief: Sentiment analysis is a technique that detects the underlying sentiment in a piece of text. Classifying text as positive, negative, or neutral. ML algorithm was used to evaluate & determine the sentiment behind it.
Tools: NLTK, WordCloud, Scikit-Learn, MatplotLib, Seaborn, Numpy, Pandas, etc.

➢ Computer Vision (Deep Learning)

1. Invoice Extraction Automation using Deep Learning & OCR (TDB)

Brief: Automating the manual data entry work by training deep learning model on variable format invoice images and extracting information using OCR and saving the data in CSV or in databases.
Tools: YOLO-V3 (Object Detection), PyTesseract, LabelImg, Regular Expression, etc.

2. Automating Extraction of Financial Document (iAcuity)

Brief: Automating manual data extraction work from Financial Documents of various extensions using Cascade Tabnet table detection architecture and PyTesseract for information extraction.
Tools: Cascade Tabnet, PyTesseract, LabelImg, Regular Expression, etc.

3. Multiple Object Detection using SSD and Faster R-CNN (TDB)

Brief: Using Single Shot Detector we can detect multiple objects within the image only in one single shot. Similarly, using Faster R-CNN we can detect multiple objects more accurately then SSD.
Tools: OpenCV, TensorFlow (SSD), Keras (Faster R-CNN), Python, Pandas, GPU, Colab, LabelImg, etc.

4. Time Series Forecasting using RNN and LSTM

Brief: Using RNN to precisely predict the future stock prices of Google by analyzing 5 years of historical data.
Tools: Keras, MatplotLib, Numpy, Pandas, Spyder IDE, etc.

5. Binary Language Classifier using Keras Word Embedding (Kaggle)

Brief: Analyzed and manipulate huge chunk of textual data and applied Keras Word Embedding Neural Network to classify the text language.
Tools: Keras, Numpy, Pandas, Kaggle, etc.

➢ Machine Learning & Web Development

1. IMDB Movie Database Analysis and Visualization (Kaggle)

Brief: Analyzed IMDB hollywood movie dataset and created visual insights.
Tools: MatplotLib, Seaborn, Numpy, Pandas, etc.

2. Crop Sowing Prediction

Brief: Crop sowing prediction uses machine learning model to predict the type of crop farmer should sow on the basis of attributes like season, temperature, humidity etc.
Tools: ScikitLearn, Numpy, Pandas, etc.

3. API Development of Machine Learning Model

Brief: Deployed Machine Learning API created using Django web framework on Heroku Cloud Platform
Tools: Python, HTML5, Django Web Framework, Heroku Cloud, etc.

➢ Hadoop / Big Data

1. Social Sentiment Analysis on Twitter Data

Brief: Analysis on Twitter data for a specific movie, brand, or any specific keyword. To analyze the sentiment of millions of citizen and know their opinion so that a decision can be taken according to citizens.
Tools: Big Data, Hadoop, HDFS, YARN, Map-Reduce, Pig, Hive, etc