

ASHISH TIWARI

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SUMMARY

- A data Scientist with 3.5 years of experience with problem-solving attitude and knowledge in various domains of Data Science especially Machine Learning, Deep Learning, Computer Vision, NLP, Gen-AI, Data Analytics with the ability and interest in building innovative AI solutions for real-life concerns, develop suitable Product Codes and Algorithms and identifying cost-saving opportunities for businesses
- A team player with excellent interpersonal and analytical skills, capable of collaborating across organizational boundaries, embracing change, working in matrix management arrangements, while being deployed to different teams & projects
- Capable of monitoring real-time queue, schedule adherence & attendance, improving efficiency, contributing to various process improvement & automation ideas, collaborating with different lines of business, preparing, optimizing & customizing reports using automation techniques and developing business reports, dashboards & outputs

SKILLS

- Data Science: Statistics, Data Visualization, Machine Learning, Deep Learning, Neural Networks, Computer Vision, Natural Language Processing, Gen-AI etc.
- Libraries: NumPy, Pandas, Matplotlib, Seaborn, Scikit-learn, Plotly, TensorFlow, Keras, nltk, Spacy, Gensim etc.
- MLOps Framework: MLFlow, Docker, Kubernetes, Flask, Streamlit, Gradio, Amazon SageMaker, Azure VM, Azure ML studio, Azure databricks etc.
- Database: Azure blob, Azure table, SQL Server, MY-SQL, PostgreSQL etc.
- Visualization Tools: PowerBI, Tableau, Grafana etc.
- LLM's knowledge: OpenAI, Hugging Face API, Long chain, GPT-4, Bard, Llama 2, Mistral 7b, Stability.ai, Falcon, Gemini etc.

EXPERIENCE

PwC India

Sep 2022 – Present

Consultant (Full Time)

- Liaising with stakeholders during problem diagnoses, requirements gathering, detailed level design, development, system test and production implementation to ensure that optimal accuracy is achieved
- Expertise in implementing end-to-end AI/ML solution from POC creation, Cost estimation, Development, UAT, PGLS till KT to BAU Support team.
- Order processing Tool (Neo) - Done the end-to-end automation for Hindustan Unilever Limited by developing Order processing Tool called Neo. In which we have used OCR, Azure Logic App, Azure function app, Azure storage and PowerBI. by which reduced manual effort by 98% and rolled out in 50+ counties. We have generated 12 Cr revenue in 2023-24 and 3 Cr revenue in 2022-23.
- L1-L2 Mail Automation - Built a fully automated & end to end Natural Language Processing (NLP) pipeline that leverages state of the art models (BERT) & transfer learning to classify text and extract explicit/implicit information using syntactic and semantic relationships from protocol documents (PDFs), mail body texts to make recommendations on optimizing Bot mail flow. Reduced manual effort by 70-80% for protocol designing process and accelerated inventory order programs through more efficient trial designs.
- Developed a Chatbot using Azure Open-AI for an Indian Retail Client.
- Designed and implemented a textual similarity model to enhance the system's ability to match FAQ sets with varied user queries, enabling our chatbot to address a broader range of questions and adapt continuously
- Helped in expansion of CAI team from 6 to 25+ team members by interviewing candidates for both senior and junior levels in the CAI team for the company.
- Recognized with "PwC India Practice Excellency Award"

- Leading and Mentoring team of data scientists by competency in research and implementation of appropriate ML Algorithms and AI Tools.

Grapes Telecom Pvt Ltd (Netoyed)

Sep 2021 – Sep 2022

Data Science - Analyst (Full Time)

- Working closely with development teams to ensure accurate integration of machine learning models into firm platforms.
- Developing data models, implementing databases, and writing MySQL stored procedures for automation of the project also analyzing content and quality of databases, and recommending data management procedures
- Delivering and implementing the project as per scheduled timelines, extending post-implementation and maintenance support to the technical support team and client
- Developed AI dashboards in covid19 which has transformed 20+ educational firms in India (DPS-Varanasi, DPS-Nashik, DPS-Nagpur, SLPS Delhi NCR etc.) as well as in Australia.
- Developed a Recruitment tool by using Power Automate, PowerBI which has reduced HR manual effort by 70-80%. Also developed a model based on Natural Language Processing and Machine Learning to rank resumes effectively. This innovation simplifies the HR task of filtering through numerous candidates applying for a specific job title
- Identifying data requirements/designing data warehouse and business intelligence applications to satisfy client business objectives
- Creating the requirements analysis, the platform selection, design of the technical architecture, design of the application and development, testing, and deployment of the proposed solution
- Mapping client's requirements & providing best products to suit their requirements by giving them PowerBI dashboards by taking data from MySQL database.
- Generating business from existing accounts and achieving profitability & growth
- Recognized with "Rising Start Award of the year"

Strategic IP Information (SIPI-IP)

Sep 2020 - Sep 2021

Research - Analyst (Full Time)

- Manage, analyze & interpret data from different platform through python and web harvy to meet client's requirements and give valuable advice in terms of insights and recommendations.
- Responsible for managing the South East Asia market of products like Maybelline, Garnier, 3CE, Montale and Mancera perfumes etc. on different platform like Amazon, Shopee.com, Lazada.com, Rakuten etc.
- Present the research findings precisely & accurately in form of presentation or report with the help of Tableau/PowerBI as desired by relevant clients.
- Organize & integrate large amount of data into clear concise presentations, Knowledge of Digital services, Web Analytics and Secondary Research.

ACADEMIC PROJECTS

Pneumonia Detection from Chest X-rays

- Designed algorithm to detect visual signs of pneumonia in chest X-rays by locating lung opacities on radiograph.
- Designed and built a model with Mean IOU score of about 91% using Transfer Learning of pre-trained model such as Unet VGG16, Mask R-CNN etc.
- GitHub link: <https://github.com/ashish090798/GL-Capstone-Project>

Sarcasm Detection in Newsfeeds (Natural Language Processing)

- Implementing a NLP based text classifier for a digital marketing company which can use input text parameters to determine the category based on blog's literature from the corpus of numerous blogs curated and maintained
- Skills and Tools: RNN, Text preprocessing, LSTM, Classification, TensorFlow, Word embedding
- GitHub link: <https://github.com/ashish090798/University-Projects/tree/main/NLP%20Project%201%20%20Statistical%20NLP>

Face Detection & Recognition (Computer Vision)

- The project involves building and implementation of an object detection model for highlighting human faces to automate the process of providing information of cast and crew while streaming and curating a training dataset to be used for highlighting human faces.
- Implement a face identification model for a company, which intends to recognize human faces from images.
- Skills and Tools: CNN, NN, Computer Vision, Tensor Flow, Siamese Networks, Triplet loss, Object Detection
- GitHub link: [https://github.com/ashish090798/University-Projects/tree/main/Advanced%20Computer%20Vision%20Project%20\(Face%20Recognition\)%20\(CV%202\)](https://github.com/ashish090798/University-Projects/tree/main/Advanced%20Computer%20Vision%20Project%20(Face%20Recognition)%20(CV%202))

Signal quality predictor (Neural Network)

- Part 1,2 & 3 deploys a GUI powered by neural network to build a regressor & classifier respectively for a communications equipment manufacturer. The model predicts the equipment's signal quality using various parameters from its products, which is responsible for emitting informative signals.
- Part 4 delivers an image classifier, which can classify numbers from the photographs captured at street level using a Neural Network"
- Skills and Tools: Autonomous Vehicles, Electronics and Telecommunication, Neural Networks, Deep Learning, TensorFlow, Image Recognition
- GitHub link: <https://github.com/ashish090798/University-Projects/tree/main/Neural%20Network>

Product Recommendation Systems (Recommender Systems)

- This project replicates a real time use case of an e-commerce company, which can recommend mobile phones to a user, which are most popular and personalized respectively.
- The project was accomplished by employing recommendation techniques such as popularity-based recommendation and collaborative filtering methods to recommend a mobile handset to its users based on the individual consumer's behavior/choice.
- Skills and Tools: Collaborative Filtering, Popularity-based, Recommender Systems, Python
- GitHub link: <https://github.com/ashish090798/University-Projects/tree/main/Recommendation%20system>

And many other projects like...

Regression models to predict 'mpg', Customer Churn Prediction, Credit Card fraud detection, Flight Price Prediction, IPL Player Ranking prediction, Wine-quality prediction, House price prediction, Diabetes prediction, Mobile price prediction, Product Reviews and Sentiment Analyzing, Spam Detection, Emotion Detection etc.

OPEN-SOURCE CONTRIBUTION

- Written 25+ blogs on different platforms like medium, LinkedIn, twitter, Kaggle etc.
- Written news articles on Gen-AI in PwC Internal portal on behalf of CAI team.
- Contributed 10+ solution/models on hugging face.
- Given a talk on AIML in SRM Institute Lucknow.
- Helped more than 50 data scientist aspirants to transform their career in AIML.

EDUCATION

The University of Texas at Austin USA (Texas McCombs School of Business)

2021 – 2022

Postgraduate in Artificial Intelligence & Machine Learning

Dr. A. P. J. Abdul Kalam Technical University

2016 – 2020

Bachelor of Technology (B.Tech)