

Gourav Singh Bais

Experienced data scientist skilled in transforming data into actionable insights to solve complex business challenges.

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EXPERIENCE

Allianz Services India| Consultant Data Scientist

November 2021 - PRESENT

LLM Based Smart Assistant for Allianz Germany

- Worked on developing and deploying the RAG-based chatbot solution for answering different user queries regarding Allianz insurance products.
- Effectively worked on evaluating the RAG-based solution with the help of LLM-as-a-judge and RAGAs metrics.
- Effectively worked on improving the performance of the entire RAG pipeline and improved the accuracy by 40% while working on various parts of the pipeline like embedding model, vector database, and similarity metrics.

A Master Template for end-to-end ML Solutions for Allianz Germany

- Designed a standardized project initiation process using the master template, enabling teams to quickly set up new ML projects with predefined directory structures, data ingestion pipelines, and model development frameworks.
- Reduced project setup time by 40%, allowing teams to focus more on model development and less on infrastructure and boilerplate code. Also, reduced deployment cycles by 50%, enabling faster iterations and delivery of ML solutions to end-users by improving the existing CICD.

Product Recommender for Claims and Coverages

- Conducted in-depth research and analysis of customer preferences, historical claim data, and policy coverages to understand user behavior and identify opportunities for personalized recommendations.
- Leveraged ensemble techniques to combine the strengths of multiple models, enhancing the overall F-1 Score to 90% and the robustness of the recommendation engine. Responsible for handling all the data science-related tasks under one product owner.

Business Classifier with Business Clustering

- Developed a classification system for small and medium commercials to classify them into different business areas. Responsible for improving the overall accuracy from 40% to 85% for the system.
- Developed data preprocessing, model training, and validation pipelines to ensure consistent and reliable results.

Led a team of interns to develop the European Accidental Forms OCR project For Allianz France.

Working on an internal LLM-based project as a solution architect while managing a team of four developers.

SKILLS

Python • R • Machine Learning (Supervised and Unsupervised) • Deep Learning (Strong Background in Computer Vision))

• Tensorflow • Pytorch • Jenkins • Docker • Kubernetes • AWS • Azure • MLFlow • Django • Flask • Git • Technical Content Writing

EDUCATION

PIEMR, Indore

April 2015 - April 2019

Bachelor of Engineering in Computer Science, CGPA: 8.62/10

CERTIFICATIONS & NANODEGREES

- **Jenkins Essential Training** - June 2023
- **Data Scientist Nanodegree** - June 2020
- **Machine Learning Nanodegree** - May 2020
- **Deep Learning Nanodegree** - May 2020
- **Mathematics for Machine Learning** - September 2019

ARTICLES & BLOGS

- <https://questdb.io/blog/2022/06/20/forecasting-with-questdb-and-tensorflow/>
- <https://thenewstack.io/getting-started-with-r-and-influxdb/>
- <https://neptune.ai/blog/saving-trained-model-in-python>
- <https://neptune.ai/blog/ml-model-reproducibility>
- <https://neptune.ai/blog/building-deep-learning-based-ocr-model>

ValueMomentum | Applied Machine Learning Engineer

June 2019 - October 2021

Deep Learning-Based KYC Verification System

- Developed an end-to-end solution for verifying ID proofs like Aadhar Card and Pocard for a Fortune 500 banking Firm using Deep Learning-based object detection and OCR. Also developed an automated Aadhar number masking system that saved a lot of cost for customers.
- Responsible for developing the deep learning algorithms for detection and OCR and deploying the model to production.

Intelligent Character Recognition (ICR) Based Systems

- Developed solutions for automatically extracting the data from different kinds of digital and scanned forms and documents using ML.

PROJECTS

European Accidental Forms OCR - March 2023

An image-based OCR system to extract data from French and English forms.

Business Classifier and Product Recommender -November 2021

A system to classify Small and Medium Commercials (SMC) into multiple domains and then recommend the best claims and coverage packages to them based on their profile.

Computer Vision-Based Vehicle Damage Assessment - June 2020

Image-based vehicle damage detection for faster claims processing using object detection, image classification, and ML algorithms.

KYC Verification System — November 2019

Automatic KYC verification using computer vision-based Face Match and ICR process.

Speech Recognition System— August 2019

Finetune Mozilla DeepSpeech model for speech-to-text using Python and Tensorflow.

Check out more of my projects on [GitHub](#).

INTERNSHIP

REOFT Technologies | Machine Learning Intern

June 2018 - February 2019

Developed a solution for improving the sales of a Cafe using techniques like Market Basket Analysis, Customer Lifetime Value Analysis, and Churn Analysis.

AWARDS & OTHERS

- Work with O'Reilly for content and book reviews.
- Work as an evaluator in GreatLearning.
- Served as data master in ACM society for college.
- Dedicated to resolving issues and queries of data science practitioners over different platforms like LinkedIn, Medium, Twitter, etc.