RUSHIT PALESHA

A driven Computer Science enthusiast with expertise in Deep Learning and AI, constantly seeking to push the boundaries of what technology can achieve.

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📍 BITS-Pilani, Dubai Campus

in LinkedIn

SKILLS

- **Deep Learning Frameworks:** TensorFlow, PyTorch
- **Python Packages**: Pandas, NumPy, Matplotlib, Scikit-learn
- **NLP:** Hugging Face Transformers, BERT
- **DL:** Computer Vision, RAGs, Math for DL
- **Algorithms:** Game Theory, Optimized Searching
- **Databases Tools**: SQL, NoSQL, Apache Kafka
- **Orchestration:** Docker, RabbitMQ, Spring Cloud
- **Other:** AWS, MLflow

PROJECTS

Natural Language Parsing into FOL
In collaboration with a University of Bamberg, Germany, we worked upon deriving FOL representation by parsing the Natural Language input using pre-trained models.

YOLOv8 for Football Tactical Map Generation
Using the YOLOv8, detected the players and football movement on the pitch and projected it onto the tactical map with 94% accuracy.

DataLine: An OpenAI powered Data Pipeline
Deployable Tool for Data Migration and Parsing, Natural Language Querying in Flask. Use of RAG to enhance query understanding. Service based computing project to facilitate easy migration.

Fantasy Premier League Football Predictor
A Random Forest Regressor Model to predict the best squad lineup for a gameweek inculcating CSP, NLP to analyse Player Form Reviews.

Crop Type Detection using Sentinel-2 Data
Developed a crop type classification model for the Kenyan region using Sentinel-2 satellite data. Used an ensemble learning approach integrating ConvGRUNet to extract spatial and temporal features effectively. Accuracy achieved: 94.3%

X-Ray Pneumonia Detection and Segmentation
Implemented a pipeline to detect pneumonia and segment infected regions in chest X-rays using YOLOv5 for detection and UNet for segmentation.

CheckMater: Enforced Checkmating Patterns
Game Theory Algorithm to find enforced checkmating patterns in Middle-Endgame. Chess Website using Pygame.

PUBLICATIONS

ChatGPT and the Social Media Echo: A Sentiment Analysis
Areas of Research: NLP-spacy, NLTK, Data Visualisation.
IEEE Explore Access Link:
https://ieeexplore.ieee.org/document/10458761

EDUCATION

BITS Pilani, Dubai Campus
BTech, in Computer Science.
CGPA: **8.95**

The Bishop's School, Camp, Pune
Grade: **96.6%** (X ICSE Boards). Vice House Captain

AWARDS AND ROLES

- Secured a **Global Nominee spot** in the **NASA Space Apps Challenge 2023**, ranked joint **first** in the UAE Region. (Team: Solvex)
- **UAE Section Lead** for IEEEXtreme 17.0 Region 8
- Pune District **Rank 3** Chess (Mayor's Cup 2013).
- **Technical Lead** at Google Developers Group (GDG) at BITS Pilani Dubai Campus.
- **Professional Assistantship** for *OOPS Course* in Java .

EXPERIENCE

AI ENGINEERING INTERN
Jetsynthesys, India.   *July 2024 - August 2024*

- Built a NLP Agent that maintains the textual tonality of the brand for marketing communications, this entailed consistent keyword usage and alignment with historical communications.
- A nutritional analyst Agent that curates a Nutritional Database using OpenAI and provides in-depth Macro-micro analysis.
- Conducted research work on BioMarkers for early-stage diagnosis using MedGemini.

BACKEND DEVELOPER INTERN
Cybage Software, India.   *June 2023 - August 2023*

- Deep dive into the world of Spring Framework for Java
- Prototyped a *Spring Data Flow Pipeline* hosted on Spring Cloud Data Flow catering to an American record label group.
- Technologies used: Spring, PostgreSQL, RabbitMQ, RESTful Servivces.

DATABASE ENGINEER INTERN
Force Motors Limited, India.   *Jul 2022 - Aug 2022*

- Designed and scaled a secure database for managing employee share correspondences, achieving a 35% improvement in information retrieval efficiency. Integrated advanced data security measures to ensure confidentiality and integrity.
- Developed an OCR application in Java to efficiently scan and extract data from PDF documents

DATA ENGINEERING INTERN
xPERT BPDC Program   *Jan 2024 - August 2024*

- Designed efficient schema across SQL and NoSQL databases for a Quizzing Application, ensuring the security of the application for assessment module.