

# RAKSHITH R

Bengaluru, India

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## Education

### PES University

*B.Tech in Electronics and Communication Engineering (CGPA: 7.98)*  
*Minor Degree in Computer Science and Engineering*

**2020 – 2024**

*Bengaluru, India*

## Experience

### Tredence

**Jul 2024 – Present**

*Associate Data Scientist*

*Bengaluru, India*

- Fine-tuned BERT with a novel data preparation technique for Invoice Harmonization, achieving an F1-score of 93.68%.
- Developed an end-to-end system using Streamlit that digitizes and harmonizes multiple invoices, improving data consistency and accessibility within a unified database.

### Tredence

**Jan 2024 – Jul 2024**

*Data Science Intern*

*Bengaluru, India*

- Worked on Invoice Digitization to extract both structured and unstructured data from invoices.
- Applied YOLOv8, Table Transformers, and Paddle OCR to achieve 92% accuracy in structured data extraction.
- Improved unstructured data extraction accuracy by 10% through fine-tuning LayoutLMv3 using a novel technique, surpassing state-of-the-art models.
- Reduced overall extraction time by 50% using an optimized approach for structured and unstructured data processing.

### superU AI

**Nov 2023 – Dec 2023**

*Product Intern*

*Bengaluru, India*

- Performed Market Basket Analysis using Apriori and Association Rules algorithms on Shopify stores like Paki, Soft Touch Lens, and Toffee Coffee Roasters, uncovering key purchasing patterns and product associations.
- Implemented Retention Analytics for Shopify stores like Paki, Soft Touch Lens, and Toffee Coffee Roasters, analyzing transaction gaps to provide insights on customer behavior.

### Quest Global

**Apr 2023 – Jul 2023**

*Machine Learning Intern*

*Thiruvananthapuram, India*

- Developed a system for liver segmentation and tumour detection from CT scans.
- Utilized UNET with VGG-17 as the backbone, achieving an IoU score of 96.7% in liver segmentation.
- Employed UNET with EfficientNet-B0 to accurately segment liver tumors, achieving an IoU score of 90.3%.

## Skills

**Technical Skills:** Python, C, Data Visualization, Statistical Analysis, Machine Learning, Computer Vision, Natural Language Processing, SQL

**Libraries and Frameworks:** Tensorflow, PyTorch, Transformers, Scikit-Learn, Streamlit, Flask

**Soft Skills:** Critical Thinking, Communication, Problem Solving, Adaptability, Collaboration

## Projects

### Reconstruction of Cardiovascular System in AR/VR using CT scans | *Python, Deep Learning, 3D Rendering*

- Led a team of four on a capstone research project, conducting an extensive literature survey to develop an efficient methodology for the early detection of congenital heart diseases.
- Tested various backbones, with UNET and InceptionV3 achieving the highest IoU score of 76.84%.
- Utilized the Marching Cubes algorithm to create a 3D model of the heart, visualized in both AR and VR environments.

### IPL Match Win Probability Predictor | *Python, Exploratory Data Analysis, Machine Learning, Streamlit*

- Developed an app that leverages user-inputted match data to provide win probabilities using a Logistic Regression machine learning model, achieving an accuracy of 80%.

## Awards and Activities

- Served as Subject Matter Expert (SME) for the course 'The Data Alchemist', introducing over 50 incoming undergraduate students to the fundamentals of Data Science and Machine Learning.
- Recognized with Best Conference Paper Award for the research paper "Reconstruction of Cardiovascular System in AR/VR using CT scans", presented at the 10th IEEE ICASI 2024 Conference in Kyoto, Japan. (Paper under publication).
- Earned Distinction Awards for outstanding academic achievement in both the first and second semesters.