



# Revalla Venkata Sandeep

## PROFESSIONAL SUMMARY

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An IIT Kharagpur graduate and an experienced data scientist skilled in machine learning and deep learning, I have extensive knowledge of NLP and computer vision techniques. I am well-versed in deep learning models like CNN, transformers, LSTMs, and RNNs. I have practical knowledge in speech recognition, face recognition, OCR, sentiment analysis, LLMs, chatbots, object detection, and image classification. Proficient in PyTorch, TensorFlow, and Keras frameworks

## CONTACT ME

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## SKILLS AND EXPERTISE

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- Python
- Data Science
- Machine Learning
- Deep Learning
- Natural Language Processing
- Sentiment Analysis
- Information Extraction
- Named Entity Recognition
- Text Classification
- Computer Vision
- Image Processing
- SQL
- ChatGPT
- Generative AI
- Large Language Models

## WORK EXPERIENCE

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### Computer Vision | Data Science Intern

*Solvio / Bengaluru*

- Generated and preprocessed a substantial dataset of OMR sheet images using azure virtual machines and OpenCV. Developed a Multi-Task deep learning model using a hybrid PyTorch-FastAI approach, resulting in an impressive 99.2% accuracy for predicting bubbled answers
- Implemented YOLO V5 and employed JSON and YOLO format annotations for circle detection in worksheets, achieving an 85% mAP
- Built a binary classifier model utilizing a pre-trained VGG16 with PyTorch, achieving a remarkable 98.12% accuracy in distinguishing between blank and non-blank images

### NLP | Data Science Intern

*RMgX / Gurgaon*

- Implemented a sentiment analysis model using word2vec embedding and the Naive Bayes algorithm to classify reviews in a multi-class setting. Achieved an impressive 98% accuracy in sentiment classification.
- Developed a summarization model to generate concise 2-3 sentence summaries for each conversation within the dataset
- Built a question-answering model capable of accurately answering questions based on the provided dataset

CERTIFICATIONS

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- Machine Learning by Andrew Ng
- Deep Learning by Andrew Ng
- Applied Data Science with Python
- Programming and Data Structures
- Qualitative Decision Making

AI Research Intern

AI4ICPS / IIT Kharagpur

- Built a binary classifier using a pre-trained Resnet34 model in PyTorch With the German Traffic Sign Dataset, achieving an accuracy of 96%
- Conducted rigorous testing of the model's performance under different white box Adversarial attacks such as FGSM, BIM, PGD, DeepFool, etc.
- Implemented various defense systems against Adversarial Attacks, Including Adversarial Training with perturbations, to enhance the model's robustness and mitigate the impact of adversarial attacks

EDUCATION & CREDENTIALS

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➤ Dual Degree (B. Tech + M. Tech)	2023
MINING ENGINEERING	
MICRO SPL. in ARTIFICIAL INTELLIGENCE AND APPLICATIONS	
IIT Kharagpur, West Bengal	
GPA: 7.3/10	
➤ Intermediate	2017
Sri Chaitanya Junior College	
Percentage: 96.3%	
➤ SSC	2015
Sri Chaitanya Techno School	
GPA: 9.0/10	

ACCOMPLISHMENTS

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- Ranked in the top 1 percentile nationally in the Joint Entrance Examination Mains 2018, demonstrating exceptional performance among a large group of candidates
- Developed a highly successful OMR (Optical Mark Recognition) model during my internship at Solvio, which accurately predicts answered bubbles, The model was successfully deployed into production and has been utilized by over 75 lakh students