

# P Mohnish

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## SUMMARY

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Results-driven Machine Learning Engineer with strong expertise in deep learning, computer vision, and NLP. Experience in building AI solutions from experimentation to implementation. Having experience in automating ML workflows and solving real-world problems with efficient and scalable solutions. Proven ability to contribute to GenAI, foundational models, and agent-based ML systems.

## TECHNICAL SKILLS

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**Languages:** Python, C, C++

**Frameworks:** Tensorflow, PyTorch, HuggingFace, OpenCV, SegmentationModels, Docker

**Developer Tools:** Git, Visual Studio, JupyterLab

## EXPERIENCE

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### Senior Programmer Analyst

*Bilvantis*

Apr 2025 – Present

*Hyderabad, Telengana*

- Developed a smart ML agent (Radx project) that identifies task type (classification, regression, or time-series regression) based on dataset and user prompt, automates model selection (from 4 options), and performs evaluation.
- Mentored and tutored interns in ML, CV, and NLP fundamentals, helping them prepare for client-facing technical interviews.
- Currently leading a real-world car sale price estimation project using ML.
- Currently building a language translation system translating English to Telugu speech/text.

### Machine Learning Engineer

*Onward Health*

Jan 2023 – Mar 2025

*Hyderabad, Telengana*

- Led a cross-functional team to develop and deploy the Nottingham Grading Tool, an AI-powered system that helps classify breast cancer severity based on key features such as cell structure, shape, and growth patterns, improving diagnostic accuracy by 30% and optimized by 23% compared to our previous baseline in breast cancer diagnosis.
- Contributed to the HuBMAP + HPA - Hacking the Human Body challenge, working in a team-based research effort to build a segmentation model.  
Improved transformer-based AI models by adding a switched auxiliary loss function, addressing vanishing gradient issues and boosting segmentation score by 2%.  
Achieved a strong Dice score of 0.793 (public) and 0.778 (private), placing it within the top 8% of submissions in the competition. ([Accepted at Springer](#))
- Built a multimodal AI system using the Foundation Model (DINO-V2) to analyze both text and images. This enabled dynamic decision-making, allowing the system to automatically classify or segment (or both) images based on user intent.
- Improved existing stain normalization pipeline by developing an FFT-based stain normalization pipeline, enhancing consistency in H&E-stained medical images.
- Also Fine-tuned models like Squeezenet1.0, EfficientnetV2, CoAt, SegFormer, YoLoV8, Unet, etc. for use various use cases like object detection, semantic segmentation and medical image analysis

### Deep Learning Researcher

*ICFAI Foundation for Higher Education*

Jan. 2022 – Jan. 2023

*Hyderabad, Telengana*

- Worked under Dr. Sandeep Panda to develop robust pipelines for Alzheimer's disease classification through hybrid model fusion. ([Accepted at Springer](#))  
Developed hybrid deep learning models, integrating CNNs with SVM, Random Forest, and XGBoost, achieving performance comparable.

## PROJECTS

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- Conversation Summarisation** | *Pytorch, HuggingFace, LLM Studio* Jan 2024 – Feb 2024
- Worked on a conversation summarization task using real-world conversation dialogues.
  - Finetuned an LLM (llama2 3b) on predicting the summaries of conversational dialogues.
- Music Genre Classification** | *TensorFlow, Librosa* May 2018 – May 2020
- Worked in the area of music genre classification for classifying audio clips into different genres.
  - Used models like RNN, BRNN, and LSTM to achieve the task at hand.

## EDUCATION AND CERTIFICATION

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- ICFAI Foundation For Higher Education** Hyderabad  
*Bachelor of Technology in Data Science and Artificial Intelligence; CGPA: 8.71/10* 2019 – 2023
- Certifications** (all links are clickable): [AI for Medicine](#), [AI for Diagnosis](#), [AI for Prognosis](#), [AI for Treatment](#), [Neural Networks and Deep Learning](#), [Face Recognition Application using Python](#)