ABHIRAM DODDA

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EDUCATION

Bachelor of Technology in Computer Science and Engineering December 2021 – June 2025
Gokaraju Rangaraju Institute of Engineering and Technology, CGPA: 9.38/10
Related Coursework: Artificial Intelligence, Machine Learning, Compiler Design, Computer Organization, Computer Graphics, Computer Networks, Operating Systems, Linear Algebra and Differential Calculus, Differential Equations and Vector Calculus, Probability and Statistics, Data Structures, Desing and Analysis of Algorithms, Database Management Systems.

PROFESSIONAL AND RESEARCH EXPERIENCE

Software Development Intern | Platform3Solutions May 2025 – Present
- Building an internal tool to help the employees manage the documents across the organization.
- Developing an LLM based API to develop a chatbot for the employees to chat with the files.
- Using ChromaDB as vector database to store embeddings and metadata and Ollama as the LLM server.

Data Science Intern | Captain Fresh March 2025 – June 2025
- Worked on a research project to develop and test a metric from spectral data to model and quantify pond health conditions; integrating the metric into a predictive system as part of a digital twin framework.
- Conducted exploratory data analysis (EDA) on satellite-derived spectral indices to identify correlations with shrimp pond health and spectral bands.
- Applied feature engineering techniques to extract informative patterns and enhance model performance.

Research Intern | IIIT Hyderabad May 2024 – December 2024
- Conducted research on advanced information retrieval techniques, with a focus on extracting meaningful insights from large-scale judicial datasets.
- Worked on "An approach for evaluation of contextual word embeddings" for Indian languages.
- Fine-tuned BERT-based models to check the effects of synonyms and grammar on the context of sentence-level sentiment analysis. Built a Telugu sentiment dataset to experiment on the hypothesis formulated.

Research Assistant | GRIET September 2023 – March 2025
- Assisted professor with Medical Image Analysis, Computer Vision, and Optimization techniques.
- Developed a two-stage plant disease classification architecture that outperformed existing CNN models by 3%
- Developed ensemble learning models for retinal disease classification and retinal blood vessel segmentation which outperformed existing models.

Flask Developer Intern | HarshanAI March 2024 – April 2024
- Engineered backend infrastructure using the Python Flask web framework.
- Integrated a secure payment gateway, streamlining financial transactions within the system.

PUBLICATIONS

Dodda Abhiram*, K. Anuradha, V.Srilakshmi, K. Adilakshmi, "A Novel Two-Stage Deep Learning Framework for Plant Disease Detection", 5th IEEE Global Conference on Advancement of Technology(GCAT) 2024

Tabitha Indupalli*, **Dodda Abhiram***, Rayapuraju Srivatsav, Singamsetty Aashrith, Vudiga Vineeth, "A Novel Deep-Learning Based Classification of Skin Diseases", 5th IEEE Global Conference on Advancement of Technology(GCAT) 2024

Dodda Abhiram*, R. Aruna Flarance, V. Srilakshmi, K. Anuradha, "Deep Learning and OCT Imaging: A Novel Ensemble Approach for Eye Disease Diagnosis", 4th International Conference on Cognitive & Intelligent Computing (ICCIC-2024) (Accepted and Presented)

Dodda Abhiram*, Y. Ekantha Sai, B. Siddarth Mahesh, K. Anuradha, B. Sankara Babu, "Ensemble Approach for Blood Vessel Segmentation in Retinal Images: Combining UNet and SegNet", 4th International Conference on Intelligent Systems & Sustainable Computing (ICISSC -2024) (Accepted and Presented)

PATENT

Smart Glasses for Visually Impaired Individuals – Sreejyothsna Ankam, Manav, **Abhiram Dodda**, Dinesh Chandra, Nagireddy Padmakshaya, Deepthi P. IPOJournal Application No.202541000874.

PROJECTS

InfluencerApp : Full-Stack Application for out-sourcing advertising contracts
- Developed a full-stack web application using Flask (backend) and Vue.js (frontend) for 3 roles (users).
- Implemented backend jobs using Celery and caching using Redis reducing API response time by 20%.

SignComm : Two-way real-time sign language translation
- Used pre-trained InceptionResNetV2 with an accuracy of 97% for sign language detection.
- Pipeline of speech to text, text processing, translation and rendering for speech to sign-language conversion.

FarmEase : Two-Stage Disease Classification System for Agricultural Use
- Implemented a hierarchical image classification system for 38 plant diseases detection using a two-stage approach.
- Designed a novel Deep CNN architecture with transfer learning, achieving 98.8% accuracy.

TabBucket : Extension to copy and open multiple links with ease
- Implemented in JavaScript and is available on Chrome, Edge and Firefox.
- Currently 70 users are actively using the extension on Chrome.

SKILLS

Python, C, C++, Java, JavaScript, SQL, VueJs, Flask, Django, NoSQL, Git, OOPs, TensorFlow, PyTorch, JAX, CUDA, SQLite, PostgreSQL, MongoDB, Linux, Image Processing, Computer Vision, Machine Learning, Deep Learning, Information Retrieval, LaTeX

ACHIEVEMENTS

Gokaraju Rangaraju Institute of Engineering and Technology Academic Excellence Award 2021-2022

Gokaraju Rangaraju Institute of Engineering and Technology Merit endowment award 2022-2023

Gokaraju Rangaraju Institute of Engineering and Technology Merit endowment award 2025

CERTIFICATIONS

- Harvard's CS50x: CS50's Introduction to Computer Science, EdX and HarvardX
- Foundational Certificate part of IIT Madras Online BS degree program in Data Science and Applications
- Data Science for Engineers by IIT Madras, NPTEL – Top 5% in Nation-wide examination
- An Introduction to Programming through C++ by IIT Bombay, NPTEL

SERVICE AND MEMBERSHIP

- Senior Mentor – Advanced Academic Center (Dec 2023 – Oct 2024): Taught Deep Learning and mentored 30 students
- Junior Mentor – Advanced Academic Center (Dec 2022 – Oct 2023): Taught Python and Machine Learning, mentored 8 students
- Training and Development Coordinator - Advanced Academic Center (Oct 2023 – Oct 2024): Headed training and development wing of the club, and initiated an open-source program.