Bala Vidula B

MSc Artificial Intelligence and Machine Learning (Integrated)

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WORK EXPERIENCE

Digital Twin (Research)   Jan 2024 – May 2024

National Institute of Technology (NIT) - Silchar

• Led research on creating a Digital Twin model to track human heart rate using smartwatch data and machine learning.

• Developed heart rate variations during different activities like walking, standing, and sleeping.

• Achieved 94% accuracy in predicting abnormal heart rates by analysing the correlation between heart rate and step count. This discovery holds promise for healthcare monitoring and personalized wellness solutions.

Data Analyst (Intern)

Ernst & Young (EY) – Chennai   Jun 2023 – Nov 2023

• Utilized Alteryx, Python, and Excel for financial Data Analytic process and integrated Power BI for creating client-focused dashboards, cutting down manual work by 80%.

• Incorporated Web Scraping using Python and Deep Learning to scrap real-time data from 5 major open-source web browsing platforms.

• Created dashboards for 27 companies forecasting the trends of their positive and negative news.

Natural Language Processing Developer (Part-Time)

Live Apps - Coimbatore   Dec 2023 – Present

• Live Apps is an open-source organization where we actively develop and maintain projects with the purpose of learning new technologies and helping others learn as well.

• Actively contributing to the open-source project 'Kitty chan' to enhance my skills and knowledge as a Machine Learning Developer.

• Kitty chan is a powerful Discord bot, currently serving 1000+ users in 15+ Discord servers with capabilities for server moderation.

• Responsible for building the Chat-bot for Kitty chan bot using NLP and Deep learning.

ACADEMIC PROJECTS

Face Verification

• Verified Passport photos against live image, achieving 89% accuracy in identity prediction.

• Model is trained on original dataset and deployed with live capture.

• **Tools used:** *Face Recognition API, OpenCV, CNN and Streamlit.*

Interactive Restaurant Dashboard

• Developed a responsive Power BI dashboard with 20 visualizations, including daily/hourly trends and sales by category/size.

• Used Sql for data handling, offering sales insights for decision making

• **Tools used:** *Power BI, Ms SQL and Data Cleaning*

Plant Disease Detection

• Developed a Deep Learning model for identifying three specific diseases affecting corn and maize leaves.

• Attained 75% accuracy, reducing the impact of diseases on plants.

• **Tools used:** *ML, CNN, Keras and TensorFlow.*

BADGES

• **Artificial Intelligence - AI Engineering**	| 08/2023	EY Badge
• **Analytic - Data Integration**	| 11/2023	EY Badge

EDUCATION

MSc (Integrated): Artificial Intelligence and Machine Learning

Coimbatore Institute of Technology   2020 - Present

CGPA : **8.92** (Till Semester 8)

BS Data Science and Applications   2022 - Present

Indian Institute of Technology Madras (IIT Madras)

CGPA : **8.0**

SKILLS

TECHNICAL SKILLS

Languages:	Python, R
Technology:	Machine Learning, Deep Learning, Reinforcement Learning, NLP, CV,
Frameworks:	LangChain, LLM, Gen Ai
Database:	Ms SQL, MongoDB, Oracle
Analytics Tools:	Alteryx, Power BI, SAP
Data Analysis:	Statistics, Tensor Flow, Matlab, PyTorch
Deployment:	Flask, Docker
Version Control:	Git, GitHub
Web Tools:	HTML, CSS, Javascript, Tailwindcss, Figma

SOFT SKILLS

• Public Speaking   • Leadership

• Event Management   • Team work

RESEARCH PUBLICATIONS

Enhancing Cardiac Health: Digital Twin Technology for Real-Time Monitoring and Abnormality Detection of Human Heart   04/2024

• 4th International IEEE Conference on Machine Learning and Intelligent Systems Engineering (MLISE 2024).   Paper

Plant Disease Detection Using Modern Detection Techniques   04/2022

• International Conference on Digital Information Security and Computing Technology (IC DIST 000072).   Paper

CERTIFICATIONS

• ChatGPT, Midjourney, AI Tools & APIs Complete Guide - **Udemy**

• Excel Pivot Tables for Managing Consultants & Analysts - **Udemy**

• Portfolio Workshop on HTML5, CSS3, BOOTSTRAP   - **Microsoft**

LEADERSHIP ROLES

Women Empowerment Cell

- *Club Advisor*	|2023 - 2024
- Joint *Secretary*	|2022 - 2023

Artificial Intelligence and Machine Learning Association

- *Secretary*	|2022 - 2023
- *Joint Secretary*	|2021 - 2022

AREA OF INTEREST

• Machine Learning   • Data Science

• Share Market   • UX Design