# NANDINI KUPPALA

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## EXPERIENCE

**Campus Ambassador** August 2024 – Present

***E-Cell IIT Bombay***

- Led entrepreneurial initiatives in collaboration with E-Cell IIT Bombay, fostering innovation and startups among students.
- Organized workshops, events, and competitions that reached over 200+ participants, promoting entrepreneurship in college.
- Coordinated with teams to ensure smooth execution of events and increased student engagement by 30%.

**Founder & Project Lead** June 2024 – Present

***Nurture Sync - in collaboration with NASSCOM Foundation***

- Developed a comprehensive health management platform aimed at individuals managing thyroid and diabetes.
- Secured mentorship and funding through ThingQbator-NASSCOM Foundation
- Led a team of 4 developers to create features like medical report analysis, AI driven personalized health recommendations, and an AI chatbot for patient support.
- Collaborated with healthcare professionals to enhance the accuracy and relevance of the platform's insights.

**Research Experience: Machine Learning, Remote Sensing, Image Processing** October 2023 – Present

***Dr. Ramesh Sivanpillai***

- Worked on real-time machine learning projects using LANDSAT data to monitor rangeland vegetation.
- Improved model accuracy by 15% using ensemble techniques, contributing to a 30% increase in profitability for Wyoming farmers.
- Collaborated with experts from the University of Wyoming and Amrita School of AI to analyze and interpret large datasets.

**Security and Software Testing Intern** February 2024 – April 2024

***Baavlibuch***

- Participated in all stages of the Software Development Lifecycle (SDLC), including analysis, design, development, and testing of a healthcare chatbot.
- Automated testing procedures, reducing manual testing effort by 40% and accelerating test case execution by 20%.
- Debugged and fixed critical application bugs, enhancing stability and performance by 25%.
- Implemented and managed testing environments in Linux, significantly improving security and data protection.

## PROJECTS

**Cash Flow Minimizer using Graph Data Structure** GitHub

- Developed a web application for financial optimization, minimizing transaction costs using graph data structures.
- Designed an algorithm that reduced transaction volume by 30%, effectively lowering operational costs.

**Real-Time DeepFake Detection Chrome Extension** GitHub

- Built a Chrome extension for real-time detection of deep fake images and videos.
- Integrated backend machine learning algorithms, achieving 80% detection accuracy.

**Marine Vision: Early Warning System for Oil Spill Detection**

- Developed an early warning system to detect oil spills using Synthetic Aperture Radar (SAR) imagery and Automatic Identification System (AIS) data.
- Utilized machine learning algorithms to classify oil spills with high accuracy and minimize false positives.
- Integrated AIS data to monitor vessel movements and correlate them with potential spill events.
- Enhanced environmental monitoring capabilities, significantly improving response times to oil spill incidents.

## EDUCATION

**Bachelor of Engineering in Artificial Intelligence** 2022 – 2026

*Amrita Vishwa Vidyapeetham* *Coimbatore, Tamil Nadu*

- **CGPA:** 7.91

## SKILLS

**Programming Languages**: Python, Java, JavaScript, SQL.

**Web Development**: HTML5, CSS, Node.js, React, Flask, RESTful APIs.

**Mobile App Development**: Flutter.

**Database Management**: PostgreSQL, MongoDB, SQL.

**DevOps Tools**: Git, Docker, Linux.

**Testing**: Automated Testing, Software and Security Testing, Selenium.

**Cloud Technologies**: Azure.

**AI & Machine Learning**: Deep Learning, Natural Language Processing, Generative AI, Computer Vision.

**Methodologies**: Agile Development, Scrum.

**Soft Skills**: Analytical Thinking, Adaptability, Problem-Solving, Effective Communication, Team Collaboration, Quick Learner.

## ACHIEVEMENTS

- **Research Internship**: Enhanced profitability potential for Wyoming farmers by delivering actionable insights.
- Presented research work titled *"Mapping Vegetation Dynamics in Wyoming: A Multi-Temporal Analysis using Landsat NDVI and Clustering"* at the ASPRS International Technical Symposium 2024.
- Solved 250+ Data Structures and Algorithms (DSA) problems.

## CERTIFICATIONS

- **Python Basic** : Hacker Rank
- **Problem Solving Basic** : Hacker Rank
- **Object Oriented Programming in Java - Specialization** Duke University (Coursera)
- **Artificial Intelligence Course Series (118 hr length)** : Infosys Springboard
- **Data Structures and Performance** : Coursera
- **Agile Scrum in Practice** : Infosys Springboard