SIVAKARTHICK B

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OBJECTIVE

Aspiring ML Engineer with strong foundations in Machine Learning, Backend Development, and data-driven problem-solving, seeking to apply practical experience in model development, optimization, and real-time automation to contribute to innovative, scalable AI solutions

EXPERIENCE

Hyperready Technology (Juinor Developer)   Oct 2025 - Present
• Currently working on real-time production projects with a strong focus on applied machine learning and AI systems.
• Gain hands-on experience in the building, training and deployment of machine learning models for production environments.
• Actively involved in developing AI agents using the Mastra framework, including the **DeepSpot Agent**, to automate repetitive tasks, streamline data workflows, and improve operational efficiency.
• Collaborating with cross-functional teams to design intelligent agents that integrate with existing systems and support predictive and diagnostic use cases.

Nitroware Technologies Pvt Ltd (Machine Learning Intern)   Jan 2025 – Feb 2025
Developed Sugarcane Yield Prediction System integrating ML models, Django web app with effective feature engineering and intuitive UI.

EDUCATION

KPR Institute of Engineering and Technology, Coimbatore, India   Sep 2023 – May 2027
Bachelor of Computer Science Engineering (**Artificial Intelligence and Machine Learning**) CGPA: 9.16
Saradha Vidhyalaya Matric Higher Secondary School, Tiruppur, India
HSC (+2): 92.6%   June 2021 – May 2022

SKILLS SUMMARY

Languages: C, Java, Python, SQL
Frameworks/ Libraries : Numpy, Pandas, Matplotlib, Scikit-Learn, Tensorflow, Pytorch, Django, FastAPI, Mastra
Tools: Jupyter Notebook, Google Colab, Visual Studio Code, Version Control(GitHub)

PROJECTS

• **Automated Attendance System** 🔗 Built a DL based face recognition model for automated student identification using InsightFace and pretrained CNN embeddings. Developed the system with a FastAPI and HTML/JS , including role-based login, attendance marking and report management.

• **Sentiment Analysis** 🔗 Built an NLP pipeline using TF-IDF vectorization and Logistic Regression for product review classification. Developed a production-ready Python solution with Scikit-learn for real-time sentiment prediction.

• **Ultrasonic Flaw Detector** 🔗 Designed an automated flaw detection system using ultrasonic sensors and Raspberry Pi for defect identification. Integrated ML algorithms for defect depth analysis with real-time LCD visualization and LED alerts.

• **Hepatitis C Prediction** 🔗 Preprocessed clinical datasets and applied feature selection to identify key predictors of Hepatitis C stages. Implemented and evaluated classification models including Logistic Regression, Random Forest, and Decision Tree.

• **Sugarcane Yield Prediction** 🔗 Implemented data preprocessing and feature engineering techniques to improve accuracy of sugarcane yield prediction. Developed a Django-based web interface for user-friendly predictions and visualizations.

PUBLICATIONS

• Enhancing Brain Tumor Detection and Diagnosis: Leveraging Image Processing and CNNs for Precision Healthcare – IGI Global Publication. **DOI:** 10.4018/979-8-3693-9045-0.ch020
• Osteoporosis Prediction Using Machine Learning: An XGBoost Approach for Early Detection, presented at ICC ROBINS (IEEE Xplore), Coimbatore (March 2025). **DOI:** 10.1109/ICC-ROBINS64345.2025.11086173
• Automated Attendance System using Deep Learning based Face Recognition with InsightFace Model – Presented at Engineering Advances 2025: Second International Conference, Pravara Rural Engineering College, Maharashtra, December 2025.

CERTIFICATIONS

Udemy – Python for Beginners
Coursera – Google AI Essentials
NPTEL – Introduction to LLMS, Getting Started with Competitive Programming, Industry 4.0 and IIoT, Data Analytics with Python
GitHub – GitHub Foundations