

AYANA BAIJU AI ENGINEER

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PROFESSIONAL SUMMARY

AI & Data Science student with hands-on experience in Machine Learning, Deep Learning, NLP, Computer Vision, and Python development. Developed real-world projects including an AI-Powered Contextual Question Generator and an AI Chessboard System integrated with a Robotic Arm, involving data processing, model training, and hardware-software integration. Strong foundation in data analysis, feature engineering, and building end-to-end AI solutions. Motivated to contribute to roles in AI/ML development, data analysis, and software development by delivering accurate, efficient, and user-focused solutions.

SKILLS

- **Programming:** python,sql,c
- **AI/ML:** Deep Learning, NLP ,Computer Vision,Model Training & Evaluation,PyTorch
- **Robotics & Embedded Systems:** Motion Control & Path Planning, Robotic Arm Kinematics, Raspberry Pi, Arduino, Object Detection Systems
- **Tools & Frameworks:** OpenCV, TensorFlow / PyTorch, Scikit-learn, Jupyter Notebook, Git & Version Control, Flask
- **Data & Software:** Data Analysis & Visualization, NumPy, Pandas, Linux / Ubuntu, API Integration
- **IoT & Hardware Integration:** IoT Technologies, Hardware–Software Integration, Edge AI

EXPERIENCE

STEM Robotics Internationals, Robotics Engineer Internship

Jun 2025 | kochi,kerala

- Acquired hands-on experience in **AI-driven robotics** through intensive project-based training.
- Designed, built, and tested autonomous robots including **Line-Following, Obstacle-Avoidance, and Object Detection robots**.
- Implemented **AI algorithms** for real-time path optimization and decision-making logic to improve robotic autonomy.
- Applied **machine learning concepts** for object recognition and sensor fusion using Raspberry Pi and OpenCV.
- Collaborated in a team to integrate hardware and software components, enhancing system reliability and performance.

ACADEMIC PROJECTS

AI Chessboard with Robotic Arm System

Dec 2024 – Present

- Designed and built an intelligent chessboard capable of detecting piece positions using Computer Vision.
- Integrated a robotic arm to perform automated chess moves with real-time motion planning.
- Implemented hardware–software communication between CV module and robotic arm controller.
- **Tech:** Computer Vision, OpenCV, Python, Robotics, Motion Control, Raspberry Pi

AI-Powered Contextual Question Generator, Miniproject

Dec 2024 – Apr 2025

- Developed an AI system that automatically generates context-based questions using NLP and Machine Learning.
- Implemented text preprocessing, feature extraction, and difficulty-level-based question generation.
- Built an evaluation pipeline for question relevance and quality. **Tech:** Python, NLP, Machine Learning, spaCy, NLTK, Transformers

EDUCATION

Royal College of Engineering and Technology,Akkikavu,kerala

Oct 2022 – Present

Bachelor of Technology (B.Tech) in Artificial Intelligence and Data Science

St.Josephs EMHS ,Aloor

Jan 2020 – Mar 2022

Higher Secondary School in Bio Science

CAREER INTERESTS

Full-Stack AI Developer,Data Analyst , Data Scientist,AI Product Developer,Robotics Software Engineer,AI Research Engineer,AI/ML Engineer

Additional Informations

Languages:English(proffesional proficiency),Malayalam(native),Hindi(Limited working proficiency)

CERTIFICATIONS

- Artificial Intelligence And Robotics-*Stem Robotics*
- Artificial intelligence -*Stem Robotics*
- Fundamentals of Machine Learning-*Microsoft Learn*
- Fundamentals of AI Concepts-*Microsoft Learn*