B.VENKATNARAYANAN
BANGALORE

+91 9380891262   b.venkatnaryanan@gmail.com   LinkedIn/GitHub

OBJECTIVE / SUMMARY:

Information Science undergraduate (6th semester, CGPA 9.25) specializing in AI/ML and cross-platform app development. Finalist at Smart India Hackathon 2024 with hands-on experience building RAG systems, LLM integrations, and Flutter-based mobile apps. Actively seeking roles in **AI/ML or full-stack development**.

EDUCATION:

B. E Information Science and Engineering,   Grade- **9.3 CGPA**
NMIT, Bangalore. 2022-2026

12th Standard,   Grade- **93%**
 BASE PU College, Bangalore. 2020-2022

PROJECTS:

LLMNet: University-Wide Locally Deployed Multimodal AI Platform | Project Link   May,2025-Present
- **Tech stack: vLLM, FastAPI, LangChain, Redis Pub Sub**
- Built a university-wide, **locally-hosted AI platform** providing access to advanced language models for research and development incorporating **LLaMA 3.1-8B, Mistral 7B,** and **Deepseek** through vLLM for streamlined multi-model inference.
- Applied **AWQ 4-bit quantization** to make the models run faster and use less memory without sacrificing the quality of responses.
- Created a smart **RAG system** with embedding-based search and **an intent classifier** that figures out what type of answer users need, automatically deciding whether to search specific documents or use full context based on the user's question.

CottonNet: "AI-Powered Detection of Cotton Leaf Diseases" | Huggingface link   Mar,2025-Apr,2025
- **Tech stack: Python, PyTorch**
- Utilized a dataset containing **2,300 images** of cotton leaves and plants, categorized as **healthy** or **diseased**.
- Developed a **custom CNN model** using **PyTorch**, achieving **82% accuracy**.
- Improved accuracy to **96.5%** by implementing **transfer learning** with the **EfficientNet model**.

LexiFIR – "Your Legal Companion 24/7"| Project Link   Nov,2024-Dec,2024
- **Tech stack: Flutter, Python, Spring Boot, AWS, Crew AI**
- Built a mobile app to assist police in mapping case descriptions to IPC sections and legal precedents.
- Led UI/UX design in Figma and developed the Flutter frontend.
- Integrated with Python/Spring Boot backend and embedded Crew AI agents for legal research.

RESEARCH & PUBLICATIONS:

Llama 3.2 Vision Instruct – Indian Traffic Scene Understanding & Object Detection   Nov,2024 – Feb,2025
- Deployed LLaMA 3.2 Vision-Instruct locally to evaluate visual reasoning on Indian traffic using 750 custom dashcam images.
- Designed structured prompts for assessing model performance across vehicles, humans, objects, and roads.
- Analyzed strengths and failure cases to support autonomous driving research; accepted at ICT4SD 2025.

INTERNSHIP EXPERIENCE:

AI Intern – Trivik Technologies, Bangalore   Jan,2025-Apr,2025
- Designed and developed a RAG-based customer service chatbot using LangChain framework and used open source llm Llama 3.2 for the model.
- Optimized chatbot performance by implementing efficient embedding retrieval and context-aware responses.

TECHNICAL SKILLS:

- Languages: C,C++,Python,R(basic)
- Concepts: OOP, Data Structures, Machine Learning
- Technologies/Frameworks: Flutter, Pytorch, Scikit-Learn, LangChain
- Design: Adobe Photoshop, Figma , Canva
- Developer Tools: Git(basic), Vs Code, Google Colab

CERTIFICATIONS / ACHIEVEMENTS:

- **Smart India Hackathon 2024 Finalist** (Conducted by AICTE and Ministry of Education)
- **Google Developer Groups**, Nitte Meenakshi Institute of Technology, **Co-Lead (Vice President)**
- Machine Learning A-Z:AI, python ,Udemy
- App Development using Flutter and Dart, Udemy