

# AJAIKUMAR E

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## PROFESSIONAL SUMMARY

Aspiring Software Developer with hands-on experience in designing and building scalable, low-latency web and AI-powered applications. Proficient in Python, JavaScript, REST APIs, and backend development using FastAPI and Node.js. Strong focus on writing efficient, testable, and maintainable code, with practical exposure to the full product development lifecycle and continuous improvement practices.

## TECHNICAL SKILLS

- **Programming Languages:** Python, JavaScript
- **Backend & APIs:** FastAPI, Node.js, Express.js, REST APIs
- **Databases:** MongoDB, SQL
- **Tools & Technologies:** Git/GitHub, Docker
- **Core Concepts:** Data Structures, DBMS, Operating Systems, Computer Networks, Linux

## PROJECTS

- AI-Powered Document Q&A System
  - **Designed and developed** a Retrieval-Augmented Generation (RAG) based application for low-latency document querying
  - **Implemented** PDF processing, chunking, and embedding storage using FAISS for high-speed retrieval
  - **Integrated** LLM APIs to generate context-aware responses
  - **Built** an interactive Streamlit interface for real-time usage
  - **Optimized** retrieval efficiency for large PDF datasets
- Recipe Sharing Platform (MERN Stack)
  - **Developed** a full-stack web application using MongoDB, Express.js, React.js, and Node.js
  - **Implemented** secure authentication and authorization
  - **Built** efficient CRUD operations for dynamic content management
  - **Designed** responsive UI ensuring smooth user experience
  - **Contributed** across the full product development lifecycle
- Multimodal Vision-Language Pipeline
  - **Developed** an AI-based system for image captioning and visual question answering
  - **Designed** FastAPI backend with dynamic task routing
  - **Integrated** deep learning models (BLIP, CLIP, SAM)
  - **Focused** on modular, maintainable software components

## INTERNSHIP

- Machine Learning Intern — LearnNex
  - Applied end-to-end ML workflow including preprocessing, model building, and evaluation
  - **Developed and tested** ML pipelines using Python and scikit-learn
  - Wrote efficient Python code for ML pipelines
- EY GDS — Next Gen Intern
  - Worked on structured software development practices
  - **Collaborated on** enterprise-grade MERN project workflows
  - Worked on structured software development practices

## EDUCATION

B.Tech in Information Technology — Prathyusha Engineering College | CGPA: 7.9