MUHAMMED HAMMAD S

CSBS Student | AI/ML & Generative AI Developer
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PROFESSIONAL SUMMARY

B.Tech Computer Science & Business Systems student (expected 2027) with hands-on experience building Generative AI applications, Retrieval-Augmented Generation (RAG) pipelines, AI assistants and machine learning models in Python. Completed multiple AI/ML and data science internships and built projects using FastAPI, LangChain, FAISS, ChromaDB and Whisper. Seeking an AI/ML or Generative AI internship or entry-level role.

TECHNICAL SKILLS

- **Programming Languages:** Python, SQL, JavaScript, PHP, HTML, CSS.
- **Machine Learning:** Machine Learning, Supervised Learning, Unsupervised Learning, Feature Engineering, Model Evaluation, Scikit-learn, Deep Learning (Fundamentals).
- **Generative AI / LLM:** Generative AI, Large Language Models (LLM), LLM APIs, Retrieval-Augmented Generation (RAG), LangChain, Prompt Engineering, Embeddings, Semantic Search, Natural Language Processing (NLP).
- **Vector Search / Speech:** FAISS, ChromaDB, Whisper, Faster-Whisper.
- **Backend / Web:** FastAPI, Streamlit, JWT Authentication, SQLite, MySQL.
- **Data Analysis:** Pandas, NumPy, Matplotlib, Seaborn, Exploratory Data Analysis (EDA), Data Visualization, Power BI, Excel.
- **Tools:** Git, GitHub, Docker.

PROJECTS

Advanced Video QA System | Python, LangChain, FAISS, ChromaDB, Whisper, Streamlit
- Built an end-to-end RAG pipeline that converts video and audio into searchable knowledge using Whisper transcription, text chunking and embedding generation.
- Used FAISS and ChromaDB for vector retrieval with LangChain to generate context-aware answers with timestamp-based video navigation.
- Developed a Streamlit interface for natural language questions over video content, with answers grounded in the source transcript.

Sentinel-AI | Python, FastAPI, SQLModel, OpenRouter, JWT Authentication, Docker
- Built an AI assistant backend with FastAPI and SQLModel, with a conversational interface powered by LLMs through OpenRouter.
- Implemented JWT authentication and a database layer to support multi-user conversation sessions.
- Containerized the application with Docker and added a crisis-detection feature to flag sensitive messages.

Dcobot-CLI | Python, CLI, RAG, Embeddings, API Integration
- Built a command-line RAG tool that automates document ingestion, chunking and embedding generation from unstructured files.
- Designed a document-processing workflow that converts raw files into retrieval-ready vector representations, with API integration for downstream RAG use.

Terminal AI Assistant CLI | Python, CLI, JWT Authentication, SQLite
- Built a terminal-based AI assistant with JWT authentication and persistent conversation storage in SQLite.
- Implemented JSON incident mirroring, export and backup of conversation history, and added a crisis-detection feature to flag sensitive input.

Video Transcriber | Python, Faster-Whisper, Streamlit
- Developed a video and YouTube transcription app that converts audio to text using Faster-Whisper.
- Built a Streamlit interface for the full workflow from media input to formatted text output.

PROFESSIONAL EXPERIENCE

AI Software Development Intern — ThirdVizion Labs (07/2026 – 08/2026)
- Developed AI software projects in Python, including Sentinel-AI, Dcobot-CLI and Terminal AI Assistant CLI (see Projects), using LLM integration, RAG and JWT authentication.

AI/ML Intern — LabMentix Pvt. Ltd. (07/2025 – 01/2026)
- Built end-to-end ML pipelines covering data preprocessing, EDA, model training, hyperparameter tuning and evaluation.
- Implemented supervised and unsupervised algorithms (classification, regression, clustering) on real-world datasets using Scikit-learn.

Data Science Intern — Saiket Systems (09/2025 – 10/2025)
- Performed data analysis and visualization on real-world datasets to produce statistical insights for BI reporting.

Python Intern — Navodita Infotech (09/2025)
- Developed Python programs using OOP principles, scripting and automation, and built reusable utility modules.

Web Development Intern — CodeBind Technologies (07/2025)
- Built responsive web pages using HTML, CSS and JavaScript and assisted with backend development in PHP and MySQL.

EDUCATION

Bachelor of Technology (B.Tech) in Computer Science & Business Systems (CSBS) | Expected Graduation: 2027
Kingston Engineering College, Katpadi, Tamil Nadu | CGPA: 7.5/10

CERTIFICATIONS

- Oracle Cloud Infrastructure 2025 Certified AI Foundations Associate
- Oracle Cloud Infrastructure 2025 Certified Foundations Associate
- Reliance Foundation — Data Science for Everyone
- Reliance Foundation — Python for Data Science

VIRTUAL EXPERIENCE / JOB SIMULATIONS

- AWS × Deloitte Australia — Solutions Architecture Job Simulation
- Tata Group — GenAI Powered Data Analytics Job Simulation
- Deloitte Australia — Data Analytics Job Simulation

LANGUAGES

English, Tamil, Urdu, Hindi