

# Akshay Bhat

Bachelor of Technology  
Artificial Intelligence and Machine Learning  
B.M.S College Of Engineering, Bengaluru

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GitHub Profile  
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## TECHNICAL SKILLS

**-Languages:** C++ | Python | C | JavaScript | SQL | HTML | CSS  
**-Frameworks:** React.js | Next.js | Tailwind | Flask | TensorFlow | Scikit-learn  
**-Tools:** Git | Google Colab | GCP | Jupyter Notebook | MongoDB | MySQL | SQLite | Vercel | Render  
**-Course Work:** Data Structures | Databases | OOP | Computer Architecture | Machine Learning

## PERSONAL PROJECTS

- **CareBridgeAI** | Python, RAG, Pinecone, SciSpaCy, React, Next.js, Flask Sept 2025  
AI-powered platform for immediate healthcare support and consultation simulation.
  - Engineered a scalable **RAG pipeline** indexing **250,000+** medical dialogues, utilizing **SentenceTransformers** for dense retrieval and **SciSpaCy** for entity extraction to enable high-precision semantic search.
  - Developed a comprehensive support ecosystem featuring **symptom-driven facility discovery**, **financial accessibility filters**, and **environmental safety insights** to optimise access to healthcare and humanitarian resources.
- **Alphawave** | Python, BERT, LSTM, Linear Regression, React, Next.js Nov 2025  
Comprehensive Fintech & EdTech platform for stock analysis and trading simulation.
  - Engineered a real-time analysis pipeline using **BERT** (sentiment) and **LSTM** (forecasting), ensembled via **Linear Regression** to generate actionable risk scores.
  - Built a gamified ecosystem featuring virtual money trading, 1v1 competitions, and **trading psychology** mini-games to test emotional discipline.
- **FabrAIC** | Python, PyTorch, ResNet50, Flask, Pandas Aug 2025  
Intelligent visual search engine for personalized wardrobe management and outfit discovery.
  - Architected a **Multi-task ResNet50** on the **DeepFashion dataset**, implementing a custom training pipeline with auxiliary heads (50 categories, 25 attributes) to learn robust **2,048-dim visual embeddings**.
  - Engineered a **vector search system** indexing **289,000+** images via **cosine similarity**, integrated with a **Flask** backend to execute real-time **content-based retrieval** of the top-5 visually similar apparel items.
- **MoodQuest** | EfficientNet-B0, PyTorch, OpenCV, Flask, Next.js, MongoDB Nov 2025  
Real-time facial expression recognition and mental health monitoring platform.
  - Secured **6<sup>th</sup> Place (National)** at a hackathon by delivering an MVP in **48 hours**, utilizing a fine-tuned **EfficientNet-B0** on the **FER-2013 dataset** with transfer learning and data augmentation to maximize accuracy.
  - Developed a wellness ecosystem featuring real-time stress analysis and standard clinical assessments (**PHQ-9, GAD-7, PSS**) visualizing longitudinal mood trends via interactive Next.js dashboards.
  - Engineered a scalable architecture using **Flask** and **MongoDB** to handle video stream inference and user data.
- **HackArena** | Python, Flask, MongoDB, OAuth, Jinja2, Render March 2025  
Full-stack platform for seamless hackathon hosting and team management.
  - Developed a centralized management platform for team formation, registration, and submission tracking using **Jinja2** templating for dynamic frontend rendering.
  - Integrated **Google OAuth** for secure authentication and deployed the fully **containerized application** on Render for public access.

## POSITIONS OF RESPONSIBILITY

- **Web Developer & UI Designer, AeroBMSCE Club**  
Designed UI/UX wireframes and design-to-code workflows for the club's web interface. 2025-Present
- **Organizing Committee Volunteer, Utsav (Cultural Fest)**  
Coordinated on-ground logistics and event operations. March 2025

## ACHIEVEMENTS

- **Top 6 Finish** at AiVerse 2.0 Hackathon Oct 2025  
Placed top 6 out of 100 teams in a 48hr Hackathon and engineered "MoodQuest," a real-time emotion detection system using PyTorch & OpenCV.
- **Top 15 Finish** at Phaseshift Tech Fest '25 Hackathon Sept 2025  
Selected as a finalist from a pool of 125 teams in a 24hr Hackathon and built "CareBridgeAI," an all-in-one multi-lingual support ecosystem featuring a fine-tuned medical AI assistant for refugees.