Pranav D P

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EDUCATION

BMS College of Engineering   Bengaluru
Bachelor of Technology in Computer Science   *Oct 2024 – Present*

TECHNICAL SKILLS

Languages: Python, Java, JavaScript, C, SQL, HTML, CSS
Frameworks: React.js, Next.js, Flask, TensorFlow, PyTorch, Keras, scikit-learn, OpenCV, Tailwind CSS
Tools: Git, Google Colab, Jupyter Notebook, MongoDB, MySQL, SQLite, GCP, Vercel, Render
Course Work: Data Structures, Databases, OOP, Computer Architecture, Full Stack Dev, Machine Learning

PROJECTS

MoodQuest ⬈ | *EfficientNet-B0, PyTorch, OpenCV, Flask, Next.js, MongoDB*   Nov 2025
- Built a real-time facial emotion recognition system using a fine-tuned **EfficientNet-B0** model on the FER-2013 dataset, achieving optimal validation accuracy across 10 training epochs with a 70% data subset.
- Developed a full-stack mood tracking platform featuring stress-level analysis, standard mental health assessments (**PHQ-9, GAD-7, PSS**), and an integrated AI chatbot to provide actionable wellness insights.
- Secured **6th place** at a national hackathon, delivering a fully functional MVP within a **48-hour** sprint by orchestrating a scalable Flask backend with a responsive Next.js frontend architecture.

HackArena ⬈ | *Flask, MongoDB, JavaScript, Google OAuth, HTML/CSS*   Mar 2025
- Architected a scalable hackathon hosting platform featuring role-based dashboards to streamline team formation, event management, and submission workflows with secure **Google OAuth 2.0** authentication.
- Designed RESTful APIs using Flask and MongoDB to handle concurrent event data and team registrations, utilizing optimized database queries to ensure low-latency performance during peak traffic.
- Implemented an administrative control panel allowing organizers to oversee the complete event lifecycle, from reviewing participant submissions to managing real-time judging and scoring systems.

CareBridgeAI ⬈ | *BART-base, Transformers, Flask, React, MongoDB*   Sept 2025
- Created an accessible medical AI chatbot by fine-tuning the **facebook/bart-base** transformer model, enabling conversational symptom analysis and preliminary healthcare guidance for underserved communities.
- Integrated voice-to-voice interaction capabilities using **Google TTS** and speech recognition, breaking language barriers to facilitate seamless healthcare support for non-English speaking populations.
- Engineered a comprehensive resource platform featuring an emergency services locator, NGO finder, and volunteer registration system, backed by a persistent MongoDB database for health record management.

FabrAIc ⬈ | *ResNet50, TensorFlow, Flask, MongoDB, Computer Vision*   Aug 2025
- Engineered an AI-powered outfit recommendation engine utilizing **ResNet50** and TensorFlow, trained on a dataset of **200,000+** fashion images to accurately predict stylistic compatibility scores.
- Developed a digital wardrobe feature allowing users to upload clothing items with automatic attribute tagging (texture, pattern, etc), employing transfer learning pipelines to digitize personal inventories.
- Implemented high-dimensional feature matching algorithms to align user inventory with fashion rules, delivering personalized outfit recommendations via a high-performance Flask API backend.

AlphaWave ⬈ | *LSTM/GRU, FinBERT, Flask, Next.js, MongoDB*   Nov 2025
- Architected a composite inference pipeline that merges **Hybrid LSTM/GRU** technical forecasting with **FinBERT** sentiment vectors, employing a **Linear Regression** meta-model to synthesize final risk metrics.
- Integrated real-time **GDELT** news streams to drive the sentiment analysis, correlating global geopolitical polarity with stock trends to enhance the model's adaptability to sudden market shifts.
- Engineered a competitive simulation ecosystem featuring **head-to-head trading duels** and **behavioral assessment modules**, utilizing gamification to quantify user emotional resilience under simulated volatility.

EXPERIENCE

CodeIO Club | Research & Development Member   Nov 2025 – Present
AeroBMS Club | Web Development Team   Jul 2025 – Present