

VIVEK V

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Passionate about building AI-powered applications and scalable web systems that solve real-world

PROFESSIONAL EXPERIENCE

Apisis Solutions – Mobile Application Development(Intern)

Feb 2026 – Present

- Developed cross-platform mobile and web interfaces using Dart (Flutter), HTML, CSS, and JavaScript, creating responsive screens and improving usability across different devices.
- Worked on a Home Automation system to monitor and control smart appliances, implementing device control logic, user interaction workflows, and backend communication
- Built a real-time Weather Forecast application by integrating third-party REST APIs, handling asynchronous data, parsing JSON responses, and updating UI dynamically
- Supported backend and maintenance tasks including debugging, performance optimization, basic Django API handling, and collaboration using Git version control

Technologies: Dart (Flutter), HTML, CSS, JavaScript, REST APIs, Git

PROJECTS

AI POWERED STUDENT LEARNING PLATFORM USING RAG WITH LANGCHAIN



- Developed a full-stack AI chatbot using the **MERN stack** that answers student academic queries in real time, with responsive React UI and RESTful backend APIs
- Designed a **Retrieval-Augmented Generation (RAG) pipeline** to process uploaded documents (PDF/DOCX/TXT), create embeddings, and perform semantic search for accurate responses
- Integrated **AWS services** including Amazon Bedrock for LLM responses, Amazon S3 for document storage, and Cognito-based authentication to manage secure user access
- Implemented real-time chat using Socket.io, maintained conversation history in MongoDB, and structured the system with modular backend services for scalability

Tech Stack: MERN Stack, LangChain, Gemini API, AWS S3, Socket.IO

DDOS DETECTION IN SDN WITH ML



- Built an intrusion detection system to identify abnormal network traffic patterns.
- Used Scikit-learn and Pandas for preprocessing and model training.
- Visualized attack detection results using Matplotlib.

Tech Stack: Python, Scikit-learn, Pandas, Matplotlib

WEATHER MOBILE APPLICATION



- Developed a cross-platform weather mobile app using **Flutter (Dart)** with modern Material UI, responsive layouts, and dark/light mode support
- Integrated OpenWeatherMap REST API with GPS location detection and city search, fetching real-time weather, hourly (24-hr) and 7-day forecasts
- Implemented MVVM architecture with Provider state management, handling asynchronous API calls, JSON parsing, caching, and offline data storage
- Added error handling, loading states, and performance optimizations to ensure smooth user experience and reliable operation without network connectivity

Tech Stack: Flutter, Dart, REST API, Provider, Geolocator, Shared Preferences, HTTP Package

AI-Powered Document Verification System



- Developed a web application to upload and automatically verify identity documents. (Aadhaar/PAN/Certificates) using OCR-based text extraction.

- Implemented image preprocessing and validation logic to compare extracted data (Name, DOB, ID No.) with user inputs and detect mismatches/tampering.

- Built secure login and admin dashboard with database storage to approve/reject documents and track verification status.

Tech Stack: Python, Flask, OpenCV, MongoDB, Tesseract OCR

TECHNICAL SKILLS

- **Programming Languages & Technologies:** Python, C, Dart, JavaScript, HTML, CSS, Flutter, MERN Stack, Django, MySQL, REST APIs, Git & GitHub.

- **Tools & Concepts:** Retrieval-Augmented Generation (RAG), LLM APIs, Prompt Engineering, API Integration.

EDUCATION

ATME College of Engineering, Mysuru 2022-26
Bachelor of Engineering in CSE (Data Science)- 8.37 CGPA

JSS PU College, SJCE Campus, Mysuru 2020-22
PCMB-91.17%

ADDITIONAL INFORMATION

Certifications

- Python Foundations Certification – Infosys Springboard
- Data Engineering Training – IVIS Lab

Publications

• Published research paper “*A Review on RAG-Based Student Assistant Chatbot using LangChain*” in EPRA International Journal of Research and Development (IJRD), Vol.10, Issue 8, Aug 2025

DOI: <https://doi.org/10.36713/epra23698>

- **Participation:** Participated in CODE-HUNT 2025, Vidyavardhaka College of Engineering
- **Languages Known:** English (Professional), Kannada (Native), Hindi (Limited)
- **Interests :** Artificial Intelligence & Chatbot Development , Full-Stack Web & Mobile App Development Problem Solving & Learning New Technologies