KNRishabpuranika

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Education

Dayananda Sagar College of Engineering 2026
BE in Information Science & Engineering(VTU) *CGPA: 8.3*
Sainik School Kalikiri 2020 & 2022
CBSE- 10th & 12th(CBSE)

Skills

Operating Systems: Linux (Arch, Ubuntu, Kali, Pop!OS)
Programming Languages: Python, C++, C, Dart
Machine Learning/NLP: LangChain, Scikit-learn, NLTK, PyTorch
Web Technologies: React.js, TypeScript
Database and Tools: SQL, ClickHouse, Hive, Streamlit
DevOps and Cloud Tools: Docker, Kubernetes, n8n
Languages: English, Kannada, Telugu, Hindi
Soft Skills: Problem Solving, Cross-functional Team Collaboration, Effective Communication and Presentation
Version Control: Git, GitHub

Projects

RealTime-Edge-Viewer | ***Python, OpenCV, WebSockets*** RealTime-Edge-Viewer
- Developed a low-latency computer vision application capable of rendering real-time edge detection filters (Canny) on live video feeds.
- Optimized video processing pipelines using OpenCV and multi-threading to ensure high frame-rate performance and smooth visual feedback during transformation.
- Engineered a robust streaming architecture to capture, process, and display video data instantly, demonstrating strong command over image processing fundamentals.

TrueSynth | ***Python*** TrueSynth
- Engineered a sophisticated multi-agent system using a "Generate, Verify, Compare" architecture to reduce hallucinations and enhance the factual accuracy of AI-generated responses.
- Integrated multiple large language models (LLMs) via the OpenRouter API, assigning each to a specialized role (generator, verifier, and synthesizer) to leverage their unique strengths.
- Implemented a real-time verification mechanism by incorporating the Tavily Search API, enabling the system to ground its answers in up-to-date, real-world information.
- Utilized LangChain to construct and manage the complex chain of operations, demonstrating proficiency in orchestrating multi-step AI workflows.

Healthcare Chatbot using LLama2 | ***TypeScript, Python, LLM*** Healthcare-Chatbot
- Designed and implemented a real-time chatbot using LLaMA2 and RAG, optimizing medical response accuracy through contextually retrieved knowledge.
- Applied NLP techniques to process user queries, facilitating the retrieval of relevant data and generation of informed responses.
- Demonstrated proficiency in NLP, LLMs, and building efficient inference pipelines for user queries.

PassForge | ***Flutter, Dart*** PassForge
- Developed PassForge, a secure password generator using Flutter and Dart, capable of creating variable-sized, randomly arranged passwords.
- Implemented AES encryption with a secure 256-bit key for robust data storage and retrieval, addressing the challenge of managing multiple credentials securely.
- Engineered a clean and intuitive user interface with Flutter, focusing on a seamless user experience for both password generation and secure storage.

Open Source Contributions

Dantotsu App
- Developed a dynamic manga download feature, increasing user flexibility by enabling tailored downloads beyond fixed configurations.
- Refactored core manga installation logic, improving efficiency and enhancing application stability by processing installations sequentially to prevent resource contention.
- Optimized installation order logic to prioritize user progress, ensuring seamless consumption and an intuitive reading experience.

Certifications/Courses

Supervised Machine Learning: Regression and Classification | Coursera

Advanced Learning Algorithms | Coursera

5 Star in C++ & SQL | HackerRank