Pranay Shaurya

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EDUCATION

VIT Bhopal University – Bachelor of Technology, CSE (Health Informatics) *Sep 2022 – 2026*
CGPA: 8.09/10.0 Bhopal, Madhya Pradesh

TECHNICAL SKILLS

Programming: C++, Python, JavaScript, SQL
Development Tools: Git, Docker, Google Cloud Platform, VS Code
Technologies: Generative AI (GCP), Machine Learning, Frontend (HTML, CSS, JS), Database Management
AI & LLM Frameworks: TensorFlow, Scikit-learn, NumPy, Matplotlib, Hugging Face Transformers
Databases: MySQL, PostgreSQL, ChromaDB

EXPERIENCE

Generative AI Programs on Google Cloud (Virtual Internship) *2024*

- Completed Google Cloud's GenAI Exchange Program and Virtual Internship focused on Gemini and Vertex AI.
- Built and deployed scalable applications using Generative AI tools on Google Cloud.
- Earned Skill Badges: "Build Real World AI Applications with Gemini and Imagen" & "Prompt Design in Vertex AI".
- Pursued advanced learning paths in Gemini and Generative AI for Developers.

Research – Alzheimer's Disease Detection using Deep Learning *2024*

- Conducted research on Alzheimer's disease detection using CNN and ML, achieving 92% accuracy on 60K+ MRI scans.
- Optimized preprocessing and hyperparameters to reduce overfitting by 25%.
- Improved model precision by 15% through fine-tuned CNN architecture.
- Co-authored a research paper accepted for publication in Springer.

PROJECTS

Alzheimer Disease Detection — Tools: CNN, ML, Python, TensorFlow *Feb 2024 – Apr 2024*

- Developed a CNN-based deep learning model achieving **92% accuracy** on over **60,000 MRI scans**.
- Implemented 5-fold cross-validation ensuring robustness and generalization.
- Optimized preprocessing pipeline using NumPy and OpenCV for MRI normalization.
- Fine-tuned hyperparameters (batch size, learning rate, kernel size) reducing overfitting by **25%**.

SRT Caption Translator – Subtitle Translation Tool (Dockerized ML App)
Tools: Docker, Python, Hugging Face Transformers, TensorFlow, Jupyter, PySRT

- Built a **containerized ML app** to translate '.srt' subtitles (EN→FR) using Hugging Face Transformers.
- Created a lightweight **300MB Docker image** from 'jupyter/tensorflow-notebook' and installed 3+ NLP packages via Dockerfile.
- Processed and translated **50+ subtitle files** with near real-time inference through Transformers pipeline.
- Used Docker Compose to expose Jupyter on **localhost:8000** and mount volumes for dynamic I/O.

Gen AI QA System for Documentation (RAG Pipeline) — Tools: LangChain, OpenAI API, ChromaDB

- Developed a **Retrieval-Augmented Generation (RAG)** system for intelligent document question answering.
- Designed a data pipeline to **load, chunk (1000 chars)**, and embed text into **ChromaDB vector store**.
- Retrieved top **K=3** most relevant chunks using cosine similarity for precise context generation.
- Deployed a ChatOpenAI model with LangChain's prompt templates for grounded response synthesis.

CERTIFICATIONS

- Google Cloud – Virtual Internship on Generative AI (Certificate Link)
- AWS Academy Graduate – Cloud Foundations (Badge)
- Coursera – The Bits and Bytes of Computer Networking (Certificate)
- Languages: English (Fluent), Hindi (Fluent), Japanese (Learning)