

Tech Stack Overview – Devanath DR

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1. Development Environment & Coding Tools

Tool	Usage Level	Notes
VS Code	Regular Use	Main code editor with Python, React, Flask, Fast Api, etc. Uses different extensions and LLM supports.
Google Colab	Regular Use	ML experiments, model training with GPU support Mainly for doing sperate ML tasks.
Jupyter Notebook	Regular Use	Data analysis and visualization To learn ML basics like Algorithms and implement them.
Git & GitHub	Regular Use	Version control and collaborative coding Sharing the project to the public
Postman	Moderate Use	API testing and debugging Mainly used while integrating backend and database and check whether CRUD functionalities working properly

2. Web Frameworks

Framework	Usage Level	Notes
HTML / CSS / JS	Regular Use	Core frontend structure Mainly uses – if the frontend is not that important
React.js	Regular Use	For dynamic UIs in personal and project work Used this for creating portfolio and other frontend important projects.
Flask	Regular Use	Backend for ML APIs and web integration
Fast API	Moderate Use	Started to learn since this framework growing now

3. AI / ML Frameworks

Framework	Usage Level	Notes
PyTorch	Moderate Use	CNNs, transfer learning
YOLOv5	Moderate Use	Real-time object detection projects Used along with COCO dataset
OpenCV	Regular Use	Image processing & integration with Flask
TensorFlow/Keras	Basic Use	ANN experiments For matricular information.

Scikit-learn	Regular Use	Classification, pipelines, ML prototyping
Pandas / NumPy	Regular Use	Data wrangling and feature engineering

4. Agentic AI Tools

Tool	Usage Level	Notes
Langchain	Moderate Use	Currently exploring LangChain and CrewAI concepts

5. LLM Platforms

Platform	Usage Level	Notes
ChatGPT (GPT-4o)	Regular Use	Coding, debugging, ideation, planning
Google Gemini Pro	Regular Use	Multimodal use and LLM comparison
Mistral APIs	Moderate Use	Prompt experimentation
DeepSeek / Grok	Basic Use	Testing performance in reasoning tasks
Hugging Face	Basic Use	For models, APIs, and dataset testing

6. AI Tools Frequently Used

Tool	Usage Level	Notes
ChatGPT	Daily Use	Development, research, doc writing
Google Colab	Regular Use	Model training and notebook experiments

Kaggle	Regular Use	ML competitions, dataset exploration
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7. Cloud Platforms

Platform	Usage Level	Notes
Render	Regular Use	Flask web app deployment
Hugging Face Spaces	Moderate Use	Hosting small Gradio/ML demo apps
Firebase (Basic)	Basic Use	Used in small-scale web apps

8. Databases

Database	Usage Level	Notes
MongoDB	Regular Use	To integrate with various projects that need database
PostgreSQL	Moderate Use	Used for structured, relational DB projects
SQLite	Regular Use	For lightweight Python/Flask apps
Firebase Realtime DB	Basic Use	NoSQL projects for basic apps

All these tools are used in different AI projects and I had experience with, currently learning Agentic ai and update the skillset.