

APARNA SUNIL

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PROFESSIONAL SUMMARY

AI Engineer with experience building production AI applications and backend systems on AWS. Skilled in API development, MCP integrations, LangGraph workflows, RAG pipelines, n8n automation, and production prompt engineering. Experienced with Python, Flask, PostgreSQL, Docker, vector databases, and AWS services including Lambda, Bedrock, DynamoDB, SQS, and S3. Strong background in machine learning, NLP, semantic search, compliance workflows, and end-to-end AI application development.

PROFESSIONAL EXPERIENCE

Heu.ai

AI Engineer

12/2025 – Present

Kochi, Kerala

SocialTrend AI • Multi-tenant content automation platform on AWS

- Built secure MCP tools connecting AI assistants with product workflows.
- Developed components for a LangGraph compliance pipeline with privacy-aware content checks.
- Improved the reliability of knowledge ingestion and multi-tenant scheduling.
- Designed production prompts for social content, video, and image generation.

SKILLS

ML & AI — Machine Learning, Deep Learning, NLP, Semantic Search, RAG, Reinforcement Learning, Natural Language Inference

Programming & Backend — Python, REST API Development, Flask, PostgreSQL, SQLite, SQL, Git

Generative and Agentic AI — LLM Application Development, MCP, LangGraph, Prompt Engineering, n8n, Anthropic Claude, OpenAI API, Gemini, Groq

Frameworks — PyTorch, TensorFlow, scikit-learn, Hugging Face, Sentence Transformers, ChromaDB, pgvector, FAISS

Data Analytics & Processing — Pandas, NumPy, Power BI, Excel, Data Modeling, Data Visualization

Deployment — AWS, Lambda, Bedrock, DynamoDB, SQS, S3, Docker, Streamlit, GitHub Actions

Soft Skills — Communication, Problem Solving, Team Collaboration, Ethical AI Awareness

PROJECTS

Nexara AI – Intelligent Resume Tailoring and Job-Matching System

08/2025 – 12/2025

LangGraph, FAISS, Python, Streamlit, SQLite, BeautifulSoup, NumPy

- Built an agentic AI assistant automating job scraping, semantic job matching, skill-gap detection, and tailored resume generation.
- Designed a multi-agent framework using LangGraph to orchestrate Profile, Skill Gap, Job Match, Resume Builder, and Tailor agents.
- Used BeautifulSoup for real-time job ingestion and SQLite for structured storage.

DermaCare AI – Workflow-Driven RAG-Based Dermatology Assistant

01/2026 – 02/2026

n8n, Python, Flask, PostgreSQL, pgvector, Sentence Transformers, Groq API, Docker

- Built a workflow-driven AI chatbot using n8n orchestration with Retrieval-Augmented Generation for contextual dermatology assistance.
- Designed n8n pipelines for document ingestion, conversational memory, semantic retrieval, and AI response generation using PostgreSQL and pgvector.
- Integrated Flask and Dockerized services for semantic search and persistent conversations.

08/2025 - 10/2025

- Built grounded, context-aware question answering over university PDFs.
- Implemented a reinforcement-learning retrieval optimizer that dynamically adjusts context size.
- Added hallucination detection using semantic similarity and NLI classification.

04/2025 – 05/2025

- Built semantic retrieval and summarization of IPC sections from user scenarios.
- Used all-MiniLM-L6-v2 sentence embeddings and DistilBART summarization to simplify legal text.

08/2024 – 05/2026

06/2019 – 05/2022

CERTIFICATES

Google UX Design Professional Certificate – Google · 11/2024