

MOHANTEJA DHARMAVARAPU

Full Stack AI Software Engineer

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SUMMARY

Software Engineer specialized in building secure, AI-driven platforms. Experienced in Full Stack Development using **Python, FastAPI, Django DRF, JavaScript, TypeScript, Next.js and PostgreSQL**. Proven ability to scrape data, clean, engineer and preprocess using Selenium, Pandas, NumPy, Matplotlib, Seaborn, Scikit Learn, PyTorch. Expertise in developing **production-grade AI applications** using LLMs, Prompt Engineering, Hugging Face, N8N, Agentic AI including **RAG systems** and **automated workflows**. Adept at leveraging **Docker** and **Kubernetes** over cloud to deploy scalable, secure and cost-effective solutions.

SKILLS

- AI & Machine Learning:** LLMs (Llama, Groq), RAG (Retrieval-Augmented Generation), Agentic Workflows, LangChain, CrewAI, Vector Databases (pgvector, ChromaDB), Prompt Engineering.
- Backend Development:** Python (Expert), FastAPI, Django, Django REST Framework, Asynchronous Programming, RESTful APIs, JWT Authentication, Rate Limiting, SQL.
- Frontend Design:** Next.js, React.js, JavaScript, TypeScript, Tailwind CSS, Framer Motion, Responsive UI/UX, Redux, Three.js (basics).
- Data & Cloud:** PostgreSQL, Web Scraping (Selenium, BeautifulSoup), Pandas, NumPy, Scikit Learn, AWS, Azure, Vercel, Docker.

PROJECTS

Teja Wellness

Live Demo: <https://healthidream.vercel.app/>

Code: <https://github.com/mohantejad/healthidream>

Stack: Python, Django REST, PostgreSQL, Next.js, Oracle Cloud, Vercel

Impact: Built a full-stack RAG application featuring an Agentic reasoning loop that performs self-correction and source-validation for lifestyle insights

CareerIDream

Live Demo: <https://careeidream-private.vercel.app/>

Code: <https://github.com/mohantejad/careeidream>

Stack: Python, Django REST, PostgreSQL, Next.js, Render, Vercel, Supabase, Groq API

Impact: Developed a multi-agent system to automate resume parsing and skill-gap analysis using Structured LLM Outputs and autonomous tool-calling

EXPERIENCE

AI Solutions Engineer (Independent Consultant)

May 2024 – Present | Sydney, Australia

- AI Architecture:** Architected and deployed production-grade AI agents, including **Teja Wellness**, utilizing **FastAPI, pgvector, and RAG pipelines** to automate domain-specific healthcare data retrieval.
- Agentic Workflows:** Engineered autonomous recruitment agents for **CareerIDream**, integrating LLM APIs with structured JSON outputs and multi-step reasoning loops.
- Backend Performance:** Developed asynchronous Python backends to manage high-concurrency LLM tool-calling, reducing API response latency for complex RAG queries.
- Data Engineering:** Designed automated scrapers (Selenium/BS4) to build custom datasets for model context, processing 10k+ records using **Pandas** and **NumPy**

Software Engineer | BarNet (OpenLaw)

Oct 2023 – Feb 2024 | Sydney, Australia

- **Backend Engineering:** Developed secured, scalable **FastAPI** and **Django REST** backends to power AI-driven legal search and information platforms for the Australian legal market
- **Data Pipelines:** Engineered robust data ingestion pipelines using **Pandas** to prepare unstructured legal documents for LLM retrieval optimization.
- **Full-Stack Integration:** Translated complex **Figma designs** into production-ready **Next.js** components, improving platform accessibility and user retention.

Software Engineer

Jan 2019 – Nov 2019 | Bangalore, India

PROGRAMMING ANALYST | SECURITY AUTOMATION

- **Automated Data Systems:** Engineered an end-to-end automation platform for real-time detection and visualization of global system vulnerabilities (CVE).
- **Production Pipelines:** Architected automated scrapers to ingest high-volume technical data into a **PostgreSQL** database hosted on **Azure Cloud**.
- **Analytics Dashboards:** Developed the platform's **Django REST** backend and **React** frontend, providing an optimized UI/UX for visualizing real-time system intelligence.

EDUCATION

Master of Information Technology

— University of New South Wales, Graduated December 2022

Bachelor of Technology in Computer Science & Engineering

— GITAM University, Graduated June 2019