Shreerama Shiva Sai Bharadwaja

 Portfolio | Shreerama | Shreerama | My Email | +91 8837580847

Summary

Aspiring Full-Stack AI Developer focused on building agentic systems, multimodal workflows, and automation pipelines. Experienced in architecting scalable GenAI SaaS platforms, multi-agent systems, and retrieval-augmented (RAG) knowledge solutions bridging deep learning, full-stack development, and system orchestration.

Core Skills

AI / Agents: LangChain, OpenAI SDK, Multi-Agent Systems, Vector DBs (Chroma)
GenAI / RAG: Context Retrieval, Re-ranking, Summarization Pipelines, Web Scrapping
Full-Stack : React.js, Next.js, Node.js, TypeScript, Express.js, REST APIs, Webhooks
Databases: PostgreSQL (Schema Design, Optimization), Supabase, MongoDB
Integrations: 3rd-Party APIs, n8n Automations, Payment & Auth Integrations
Infra / DevOps: Python, Docker, GCP
Frontend: TailwindCSS, ShadCN, Framer Motion, Chart.js, HTML, CSS

Professional Experience

ThinkMetal Private Limited, Chennai   *Jan 2023 – Present*
New Product Development Lead · Founding Engineer

- Leading new product development for compact desktop metal 3D printer from prototyping to production.
- Built 3D printer's toolhead and transmission subsystems and a Furnace, integrating embedded firmware, FEA/CFD, and test automation.

Semi-Conductor Laboratory (MeitY, Govt. of India), Mohali   *Jan 2022 – Aug 2022*
Trainee · Automation & Hardware Integration

- Built automated device handler for semiconductor chip segregation with OpenCV and motion control.
- Integrated deep learning-based nozzle alignment and embedded test frameworks for accuracy.

Nottingham Trent University, UK   *Jul 2021 – Jul 2022*
R&D Intern · Medical 3D Printing Systems

- Designed sterile PEEK 3D printer for cranial implants with CFD and thermal flow optimization.

Centre for Innovation in Biomedical Devices (CIBioD), PGIMER   *Mar 2021 – May 2022*
Project Lead · R&D Intern

- Developed AI-powered patient-care bed and eye-tracking wheelchair system (Patent Filed).

Key Projects

ExpoFollow – AI-Powered Trade Show Follow-Up Platform (Next.js, MongoDB, OpenAI SDK)

- SaaS platform automating personalized B2B follow-ups via GPT-4o-mini, boosting response rates.
- Integrated webhook-based reply tracking and CSV-driven lead management.

LoRA Fine-Tuning and AI Tools (Python, PyTorch, RTX 3060 12GB)

- Fine-tuned open-source LLMs locally using Low-Rank Adaptation (LoRA) on RTX 3060 (12GB) GPU for task-specific optimization.
- Achieved efficient memory usage and fast training cycles using quantized precision and parameter-efficient tuning.

Portfolio with Chatbot (NextJs, Redis(Upstash), Prompt Engineering, Tailwind CSS, ShadCN)

- Fine-tuned open-source LLMs locally using Low-Rank Adaptation (LoRA) on RTX 3060 (12GB) GPU for task-specific optimization.
- Achieved efficient memory usage and fast training cycles using quantized precision and parameter-efficient tuning.

PDF Helper (Next.js, React, TypeScript, Tailwind CSS, Node.js, PDF-Lib, Docker)

- PDF-helper is a Next.js web application for comprehensive PDF manipulation. It features tools for merging, splitting, compressing, and AI-powered summarization of PDF documents.

Agentic Trading Workflow (Python, React Js, n8n, webhook)

- Built multi-agent system for autonomous trade analysis and action orchestration.

Classify Radio Signals from Space (Keras, Seaborn)

- Built CNN using Keras to classify radio signals visualized via spectrograms.
- Achieved high classification accuracy for space signal detection and analysis.

Research & Publications

- **Optimizing Cranial Implant Design** — Published in *Proc. IMechE, Part L: Journal of Materials: Design and Applications (2022, 2023)*.
- **Intelligent Bed for Patient Care** — Indian Patent No. 202111034970 (WIPO IN393725771).
- **Active Transradial Bionic Prosthetic Arm** — Indian Patent No. 202211030357 (WIPO IN368687012).

Certifications

- **Oracle Cloud Infrastructure 2025 Certified Generative AI Professional** — Demonstrated expertise in Large Language Models (LLMs), Retrieval-Augmented Generation (RAG), Semantic Search, LangChain, and OCI Generative AI Service. *Issued by Oracle, Expires Oct 2027.*
- **Simple RNN with Keras** — Built and trained RNN for sequence modeling (Coursera Guided Project).
- **Classify Radio Signals from Space using Keras** — Developed CNN achieving high accuracy (Coursera).
- **Generate Synthetic Images with DCGANs in Keras** — Built GANs for synthetic image creation.

Education

B.E. – Mechanical Engineering, Panjab University (UIET)   2019–2023
GPA: 7.87 / 10

Focus Areas

Full Stack Agentic • AI Architectures • GenAI SaaS • Multi-Agent Systems • RAG Systems • Deep Learning