Sri Megha T

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LinkedIn | GitHub | Portfolio

Summary

AI developer and generative-AI engineer who ships features end to end, from the FastAPI backend and job pipelines to the React UI. I've built multi-agent LLM systems, generative image, video and 3D tools, and retrieval pipelines that production teams rely on daily, and I work hands-on with the models themselves: LoRA fine-tuning, ComfyUI pipelines and integrating new image and video models. Comfortable owning a feature from design through code review to release, and quick to learn a new model, framework or codebase.

Technical Skills

Languages: Python, JavaScript, SQL, C, R
Agents & LLMs: Multi-Agent Systems, Hermes Agent, LangChain, Tool Use, RAG, Prompt Engineering, GPT, Claude, LLaMA
Generative AI: Diffusion, Image/Video Generation, Image-to-3D, LoRA Fine-Tuning; FLUX, Seedream, Seedance, WAN, VACE, LTX, Veo, Kling, Z-Image
ML & Retrieval: PyTorch, Transformers, Hugging Face, AI Toolkit, OpenCV, ComfyUI, Video Embeddings, Azure AI Search
Software: FastAPI, REST, Async Job Pipelines, Redis, React, Tailwind CSS, MongoDB, Firestore, PostgreSQL, Docker, Git, Linux
3D & Creative: Trellis, Tripo, Blender, Unreal Engine, Style Transfer, Storyboard Generation

Experience

Galleri5 (Collective Artists Network) — Bengaluru, India
Associate AI Engineer — *Nov 2025 – Present*

Engineering

- Contributed backend (Python, FastAPI) and frontend (React) work to AI Studio Labs, Galleri5's suite of AI production tools, including Texture Studio, Asset Kit, Light Card, Camera Forensics, Wall Studio, Style Studio and Motion Previs (about 31k lines across 75 commits).
- Built Hermes, a multi-agent film-production system used on *Krishna*, where a conductor agent delegates scene and shot analysis, storyboard generation and character updates to specialist agents.
- Maintained Projects V2, the production tracker for AI feature films, and added the Activity Feed, task links to Labs tools and render-cost estimates.
- Built reusable ComfyUI pipelines and integrated 9 image and video models into production, along with storyboard generation, background/foreground replacement and style transfer tools.
- Trained 8+ character, style and environment LoRAs with AI Toolkit and Hugging Face to keep faces, costumes and look consistent across a film.

Ownership & Collaboration

- Owned the technical AI workstream for *Krishna*, reporting to the production lead.
- Provided production support for *Krishna*, *Hanuman* and *Mahabharat*, and acted as the go-to person for technical issues in AI Studio.

Innspark (CISAI) — Kollam, Kerala
ML Project Intern — *Jan 2025 – June 2025*

- Built a hybrid Swin Transformer–ResNet model for stenosis detection on angiogram images, reaching 96% accuracy, 40% above existing models.
- Designed the detector as four Swin stages feeding a feature pyramid network and a ResNet detection head, plus a Swin encoder–decoder for pixel-level segmentation at 512×512.
- Built the PyTorch pipeline (OpenCV preprocessing, augmentation, transfer learning) and used mixed-precision training to cut compute time without losing accuracy.
- Authored a research paper on the architecture and researched 3D printing for cardiovascular care.

Amrita Mind Brain Center — Kollam, Kerala
ML Intern — *June 2024 – Dec 2024*

- Built a Freezing-of-Gait prediction system for Parkinson's disease from wearable accelerometer data on 20+ patients and healthy controls.
- Engineered 36 features from 9 sensor channels with sliding windows, selected predictors with t-tests and ANOVA, and handled a 6.8:1 class imbalance with minority-class augmentation.
- Random Forest reached 97.1% accuracy with 91.9% sensitivity and 97.9% specificity; an attention-LSTM reached 92.3%.
- Identified ankle movement as the key biomarker and published the results as an interactive dashboard on Hugging Face Spaces.

Bylin Medtech — Trivandrum, Kerala
Intern — *Jan 2023 – Feb 2023*

- Contributed to early-stage development of medical devices, including a juvenile glucometer and a saliva patch for xerostomia.
- Conducted literature reviews to assess clinical needs, benchmark existing solutions and identify innovation gaps.
- Gained hands-on lab experience with PCR, electrospinning and 3D bioprinting, applied to medical prototyping workflows.

Projects

Video-Embedding Shot Matching | *Python, gemini-embedding-2, Azure AI Search, FastAPI*
- Traced delivered shots of an AI feature film back to the generations that produced them: an MD5 pass catches exact copies, then whole-clip video embeddings are searched by cosine similarity, with a side-by-side review viewer for uncertain cases.

Image-to-3D Asset Pipeline | *Trellis, Tripo, Nano Banana, Blender, Unreal Engine*
- Turns concept art into textured 3D assets: Nano Banana cleans up the source views, Trellis and Tripo build the mesh, and Blender handles retopology, texturing and GLB export for Unreal Engine.

Knovera — AI Research Analysis Assistant | *Python, LLMs, Knowledge Graphs, NLP* Live Demo
- Ingests document collections, extracts entities and relationships with LLMs, and turns them into interactive knowledge graphs.

AI Support Agent for a Fintech Telegram Bot | *Python, FastAPI, PostgreSQL, Streamlit, LLMs*
- Drafts on-brand replies to Telegram support questions, sends each through human review before posting, and tracks response times on a dashboard.

Gut Plate Designer — Personalised Meal Planner | *Python, PostgreSQL, LLaMA 3, GPT-2, RAG*
- A database of 5,000+ Indian recipes with cleaned text and standardised ingredients; a short profile quiz feeds a classifier, RAG prompting and fine-tuning experiments (ongoing).

Publications & Certifications

- **Book chapter, Springer (2026).** "Integrating Artificial Intelligence Aided Vibrational Spectroscopy Applied to Medical Biopolymer Applications." In *Vibrational Spectroscopy for Biopolymer Characterization*, Ch. 12, pp. 237–279. Springer, Cham. Panicker A., Manoharan K., **Thambi S.**, Gangadharan S. V., Poornachandran P., Nambudiri M. K. ISBN 978-3-032-15306-7. DOI: 10.1007/978-3-032-15306-7_12
- **Applied Gen AI, Cohort 5**, 100xEngineers. Certificate of completion, Dec 2025.

Education

Amrita Vishwa Vidyapeetham — Kerala, India
M.Sc. Bioinformatics — CGPA: 8.7 — *2023 – 2025*

Bharathiyar University — Tamil Nadu, India
B.Sc. Biotechnology — CGPA: 7.0 — *2018 – 2021*