

Shantanu Kumar

+91 9229977256 | shantanuk436@gmail.com | linkedin.com/in/shantanu-kumar-s34 | github.com/shantanukumar22

EXPERIENCE

ROVO <i>Chief Technology Officer (CTO)</i>	2026 <i>Rome, Italy</i>
– Led the technical strategy and architectural enhancement of the core mobile application and scalable web platform. – Spearheaded end-to-end system design, ensuring high performance, scalability, and reliability across services.	
Freelance Developer <i>NDA Content Protect Software</i>	June 2026 – Present <i>Rome, Italy</i>
– Developing infrastructure for protecting proprietary AI assets and sensitive digital content under NDA.	
Aistad <i>Freelance Web Developer</i>	May 2026 – Present <i>Italy</i>
– Developed a platform for Italian lawyers to manage quotes, milestones, and pro-forma collection alongside existing accounting software.	
Sythra.ai (Previously TheCourse) <i>Founder & AI Engineer</i>	2026 – Present
– Built AI learning platform with contextual agents, automated project scoring, and in-browser code execution. – Secured funding from Italy while implementing adaptive evaluation logic and structured AI feedback workflows.	
TitanTech Investments <i>Full-Stack Engineer (Remote)</i>	June 2025 – Oct 2025 <i>Dubai, UAE</i>
– Maintained and optimized investment platform serving 1,000+ active users. – Improved frontend rendering, caching, and API batching strategies, reducing load times by 40%.	
DC Diamond Jewellers <i>Full-Stack Developer</i>	Freelance
– Designed and deployed production-grade e-commerce platform with secure authentication, admin dashboards, and payments.	

PROJECTS

SnapSearch	PyPI
– Built an AI agent and custom MCP server to analyze screenshots, organize into folders, and enable natural language search. – Engineered for complete local execution without cloud uploads or subscriptions.	
VisionLanguage Transformer from First Principles	GitHub
– Designed multimodal architecture combining Vision Transformer encoder with autoregressive decoder. – Implemented contrastive learning objective, rotary embeddings (RoPE), Grouped Query Attention (GQA), and KV-cache.	
Vanilla Transformer from Scratch (PyTorch)	GitHub
– Implemented original Transformer from scratch in PyTorch, building self-attention, masking logic, and encoder-decoder stacks.	
Agentic Blog Generation System	GitHub
– Engineered multi-step LLM orchestration using LangGraph with memory persistence, tool usage, and validation pipelines.	
ResNet-34 Inspired Audio CNN	GitHub
– Developed a ResNet-style CNN for audio spectrogram classification and deployed end-to-end inference API using PyTorch and Modal.	

EDUCATION

Bennett University <i>B.Tech Computer Science (AI/ML Minor), SGPA: 8.55/10.0</i>	Aug 2024 – Present <i>Greater Noida, India</i>
– Coursework: Data Structures, Operating Systems, DBMS, Software Engineering, Machine Learning	

LEADERSHIP & ACTIVITIES

Fullstack BU Club <i>Webmaster</i>	2024 – Present <i>Bennett University</i>
– Led technical team; organized 25+ events; delivered workshops mentoring 1000+ students in full-stack and AI systems.	

TECHNICAL SKILLS

Languages: Python, JavaScript, TypeScript, C++, SQL
AI/ML: PyTorch, Transformers, RAG, Agentic AI, Generative AI, Vision Transformers
Frameworks: Next.js, React, FastAPI, LangChain, LangGraph
Infrastructure: MongoDB, Supabase, Vector DBs, MCP, Modal, Docker