

Dhruv Gupta

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EDUCATION

- **Bennett University, The Times Group** Greater Noida, India
B.Tech – Computer Science and Engineering (Specialisation in AI); CGPA: 8.92 2024 – 2028
Relevant Coursework: Linear Algebra, Probability & Statistics, Machine Learning, Deep Learning, NLP, DSA

TECHNICAL SKILLS

- **ML / DL:** PyTorch, TensorFlow, Hugging Face Transformers, Scikit-learn, OpenCV, NumPy, Pandas
- **Models:** U-Net, Conditional GANs (PatchGAN), BERT/RoBERTa, GPT-2, Vision Transformers, Autoencoders
- **GenAI & Agents:** LangGraph, LangChain, Strands Agents SDK, LiteLLM, AWS Bedrock, RAG, Tool Calling
- **Languages:** Python, Rust, TypeScript/JavaScript, SQL
- **Systems & Deployment:** FastAPI, Docker, Modal, Vercel, WebAssembly, Tokio, Rayon, SQLite, Redis, Git

EXPERIENCE

- **Publicis Resources** Gurugram, India
Applications Admin Intern – AI/ML June 2026 – Aug 2026
 - Administered and tested AI-enabled enterprise applications in production.
 - Handled DSAR workflows and data validation; documented processes for MLOps teams.
- **Research Lead**, IEEE & ACM Student Chapters, Bennett University – leading student AI/ML research 2025 – 2026

RESEARCH PROJECTS – DEEP LEARNING & NLP

- **Resolving the PatchGAN Paradox** | *PyTorch, cGAN, U-Net, BraTS 2020* GitHub | Live
 - Ran a four-model discriminator ablation of cGANs for MRI tumour segmentation, linking checkerboard artefacts to kernel/stride; a 4×4 stride-2 PatchGAN scored best (PSNR 25.96 dB, SSIM 0.958).
- **IndicRAG-QA – Cross-lingual RAG** | *Python, BM25, Dense Retrieval, LLMs* GitHub
 - Built a RAG pipeline for English, Hindi and code-mixed queries that cites a passage or abstains; designed script-aware RRF fusion, lifting cross-lingual Recall@5 from 0.022 to 0.153 ($p < 0.001$).
- **Penumbra – ML Network Intrusion Detection** | *Scikit-learn, PyTorch, Autoencoders* GitHub
 - Built a known-threat classifier plus a benign-only autoencoder novelty head (Bennett Hackathon 2026, Microsoft track); raised recall on unseen attacks from 8.5% to 54.1% at a matched 2% FPR.

AGENTIC AI & DEPLOYED PROJECTS

- **Ruchi – Legal Citation-Integrity Agent** | *Strands Agents, LangGraph, Bedrock, FastAPI* GitHub | Live
 - Built and deployed an agent that verifies every citation in a legal brief against 38,005 Supreme Court judgments via an 8-node LangGraph pipeline; 8 tool-calling checks keep every answer grounded.
- **TruthShield – Agentic Fake News Detection** | *RoBERTa, LLM Agent, FastAPI, Modal* GitHub | Live
 - Fine-tuned RoBERTa with a GPT-2 perplexity fusion head (val F1 0.9956) and paired it with an LLM agent that checks claims against live news; explainable via attention rollout.
- **Rust Systems Projects – WebAssembly Deployment** | *Rust, Tokio, Rayon, WASM* GitHub | Live
 - Built an async Redis client (RESP2/3, pipelining, connection pool), a PoW blockchain and a parallel CLI; compiled to WASM to run live in the browser, with 132 tests.

HONORS AND AWARDS

- **NST GenAI Hackathon – Special Jury Award** Live | LinkedIn
 - **Wraith OS – RetroCloud:** built a lightweight cloud file-management system with a FastAPI backend.
- **Project Showcase 2025 (Bennett University × Times of India) – 2nd Runner-Up** Live | LinkedIn
 - **TerraVit:** built an AI climate-intelligence system that applies Vision Transformers to satellite imagery.