

PRIYANKA SAXENA

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EDUCATION

Texas Tech University

M.S., Computer and Information Science

• GPA: 3.44

Aug 2023 - May 2026

Lubbock, TX

Chhattisgarh Swami Vivekanand Technical University

B.Tech., Civil Engineering

• GPA: 3.32

Jul 2018 - Jun 2022

India

TECHNICAL SKILLS

- **Languages:** Python, Java, C/C++, JavaScript, SQL
- **AI/ML:** PyTorch, Hugging Face Transformers, LLMs, NLP, RAG, FAISS
- **Backend / Web:** FastAPI, Flask, React, Node.js, REST APIs
- **Cloud / DevOps:** Azure, AWS, GCP, Docker, Kubernetes, Terraform, CI/CD, Git, Linux

EXPERIENCE

TopHat Software

Cloud Engineering Intern

Jun 2022 - Jul 2023

- Designed and deployed Azure infrastructure using Terraform and ARM templates, increasing service uptime from 88% to 98.5% while implementing secure networking, Azure AD identity controls, and Key Vault secrets management.
- Automated CI/CD, monitoring, and cloud operations using Azure Monitor, Log Analytics, Docker, and Kubernetes, reducing mean time to resolution by 30% and recurring support tickets by 25%.
- Built Python and PowerShell automation for provisioning, backup scheduling, configuration validation, and infrastructure operations, improving deployment efficiency while contributing to a 15% reduction in cloud costs.

Texas Tech University

Graduate Assistant - IT Learning and Technologies

Aug 2025 - May 2026

- Streamlined enterprise software deployment workflows using KACE, reducing setup time by 70% across university-managed systems while supporting remote administration, device management, and deployment troubleshooting.

Graduate Assistant - Customer Experience / Technology Support

Jun 2024 - Aug 2025

- Diagnosed and resolved 500+ hardware, software, access, and system issues across 300+ managed systems per semester using structured debugging and root-cause analysis.
- Improved technical support workflows and cross-team issue resolution, contributing to a 35% reduction in ticket backlog while communicating solutions to users with varied technical backgrounds.

PROJECTS & RESEARCH

LLM-Powered Code Intelligence Platform

Mar 2026 - Apr 2026

- Built a full-stack LLM-powered platform for repository analysis, documentation generation, semantic code search, and developer Q&A using Python, FastAPI, PyTorch, Hugging Face Transformers, and REST APIs.
- Implemented FAISS-based retrieval-augmented generation and AST-based validation to provide context-aware responses while reducing hallucinations and improving structural correctness of generated specifications and documentation.
- Containerized backend services with Docker and designed cloud-ready APIs for deployment using AWS EC2/S3, creating a production-style RAG pipeline from code ingestion through retrieval, generation, and validation.

Master's Research - Code-to-Documentation Generation

Aug 2024 - May 2026

Texas Tech University

- Developed an LLM-powered framework for generating software specifications and developer documentation from source code using CodeT5, PLBART, PyTorch, and Hugging Face Transformers.
- Designed AST-based validation, cross-validation, and refinement mechanisms and evaluated generation quality on Java datasets using BLEU-4, ROUGE-L, interface coverage, identifier consistency, and agreement metrics.
- Improved CodeT5-base BLEU-4 from 0.495 to 0.557 (~12.5%) in experimental evaluation, demonstrating stronger generated documentation quality through the validation/refinement pipeline.

YOLO-Driven Real-Time Vehicle Recognition

Aug 2024 - Dec 2024

- Trained and benchmarked YOLOv3-v8 architectures on 5,000+ labeled vehicle images using mAP, precision-recall, and inference latency to evaluate real-time deployment suitability.
- Selected YOLOv5 as the best accuracy-speed trade-off, achieving 92% mAP and <120 ms inference latency, and deployed a Flask + OpenCV service for live camera-feed detection and end-to-end benchmarking.