

SANJANA RAVI PRAKASH

sanjanarp26@gmail.com | Portfolio | <https://www.linkedin.com/in/sanjana-rp/>

PROFESSIONAL SUMMARY

I'm an AI engineer with 4+ years of getting machine learning to actually work when it matters. I've built LLM applications and full-stack products that survive real usage by obsessing over the boring stuff: reliability, integration, edge cases. And all of them built on the principle that practical reliability beats theoretical perfection.

EXPERIENCE

TuDu, Arlington, US

Jan 2026 - Apr 2026

AI Engineer

- Built AI-driven task planning features using LLMs to parse natural language into structured schedules and actionable tasks, including prompt design and output optimization. Developed scalable backend services with Django and PostgreSQL for task management, reminders, and collaboration.
- Integrated external APIs (Google Maps, pricing data) and enhanced tasks with contextual AI recommendations. Contributed across the stack (React/React Native + backend) to deliver seamless, end-to-end user experiences

University of Texas at Arlington, Arlington, US

Jul 2025 - Aug 2025

Graduate Research Assistant (Machine Learning & AI Prompt Engineering)

- Improved an image super-resolution system by replacing a text-based component with an image classifier, allowing the model to better enhance low-quality animal images. Built and tested the full PyTorch pipeline and conducted structured experimentation to evaluate AI model performance and output consistency.

Accenture, Bangalore, India

Aug 2023 - Aug 2024

Software Engineer

- Contributed to the end-to-end development and deployment of scalable .NET Core services for a large-scale client-server architecture, ensuring reliable production rollouts and minimal downtime. Developed components using C#, ASP.NET Core, Angular, and SQL Server while integrating with Azure services and tools such as Azure DevOps and SSMS.
- Actively participated in CAB (Change Advisory Board) meetings to communicate and execute configuration changes, reducing project deployment delays by 25%.
- Gained experience in full-stack development, documentation, and working within cross-functional teams across the software delivery lifecycle.

Geekbytes Solutions, Bangalore, India

Dec 2022 - Aug 2023

Web Developer

- Developed and launched a responsive multi-page website using HTML, CSS, and JavaScript, improving the company's online presence and user engagement, resulting in a 43% increase in website traffic and conversions.
- Designed seamless user interfaces in Figma, enhancing the visual appeal and usability of the website, which led to a 30% increase in user satisfaction ratings.

Veripure Industry, Bangalore, India

Jan 2021- Dec 2022

Machine Learning Engineer

- Designed and deployed a machine learning based computer vision pipeline using Python and OpenCV to classify chemical solution colors from test-tube images. Integrated structured image preprocessing and model evaluation workflows, reducing manual testing time by 40%.

PERSONAL PROJECTS

AI Future Self Simulator (AI Prompt Engineering & Agentic AI System)

- Created an agentic AI tool that helps users think through major decisions by showing how different choices could play out over time, using an LLM (GPT-based) deployed via Azure OpenAI Service to reason through scenarios and clearly explain pros, cons, and trade-offs.

EdgeConnect+: Adversarial Inpainting with Edge and Color Guidance

- Designed a 3-stage GAN-based inpainting framework in PyTorch with edge prediction, TELEA-based color fusion, and final image synthesis. Implemented Canny edge preprocessing, mixed-precision training, EMA stabilization, VGG-based perceptual and style losses, and modular dataloaders for CelebA dataset to enhance structural and colour fidelity in image restoration.

AI-Powered Personal Finance Manager (LLM + Prompt Engineering + RAG)

- Built a Python-based financial web application integrating Plaid APIs for structured transaction data ingestion and implemented a retrieval-augmented generation (RAG) pipeline using GPT-4/GPT-3.5-Turbo to deliver context-aware budgeting insights and personalized financial recommendations. Developed the UI with Streamlit, added bill reminders, receipt scanning, and recurring transaction detection, and containerized the application using Docker before deploying on AWS EC2 with ECR.

UML Scenario Architect (Prompt-Driven AI System)

- Generative AI system leveraging LangChain, Groq's Llama 3.1, and Graphviz to autonomously transform software requirements into precise UML class diagrams through prompt engineering and multi-model orchestration.

Interview Bot

- Combined NLP (Natural Language Processing) and facial analysis using HuggingFace to build an interactive tool for simulating and improving interview performance using Python & Flask. The bot generates dynamic, context-aware follow-up questions, mimicking the flow of a human-led interview. Utilized HTML, CSS, Javascript for front-end and SQL for storing data. Undergrad Final Year Project- sanctioned under 46th series of Karnataka State Council for Science and Technology Student Project Program 2023.

EDUCATION

Master of Science in Computer Science

University of Texas at Arlington, Arlington, TX, US

Aug 2024 - May 2026

GPA: 3.9/4

Bachelor of Engineering in Computer Science

Visvesvaraya Technological University, India

Aug 2019 - May 2023

GPA: 9.22/10

SKILLS

Languages: Python, Java, C++, JavaScript, SQL, C# (.NET), PHP, Dart, HTML/CSS | **AI/ML:** Claude, ChatGPT (GPT-4/3.5), Azure OpenAI, LLM agents, agentic AI, prompt engineering, prompt chaining, tool/function calling, RAG pipelines, structured output parsing, context optimization, multimodal AI, NLP, PyTorch, HuggingFace, spaCy, OpenCV, GANs, model evaluation | **Automation & APIs:** Workflow automation, REST APIs, API integration, data pipelines, CRM automation, Google Sheets integration | **Frameworks & Tools:** LangChain, Pydantic, Flask, Streamlit, NLTK, Flutter, React, Figma, UI/UX, SDLC, system design, rapid prototyping | **Cloud & DevOps:** AWS (EC2, S3, ECR, ECS, ALB, Lightsail), Docker, Kubernetes, MLOps | **Databases & Tools:** MySQL, SQL Server, SSMS, Firebase, Git, GitHub, Azure AI Foundry

CERTIFICATIONS

Neural Networks and Deep Learning (DeepLearning.AI)

Machine Learning in Production (DeepLearning.AI)

IBM RAG and Agentic AI Professional Certificate (Coursera, IBM)

VOLUNTEER EXPERIENCE

Visvesvaraya Technological University, India

Aug 2022 – May 2023

StudentEventCoordinator

- Coordinated and managed logistics for campus-wide events, including recruitment fairs, community service drives, and student leadership workshops, attended by 200+ participants.
- Led a team of 10 volunteers, delegating responsibilities and ensuring timely execution of event tasks such as registration, setup, and attendee engagement. Developed detailed event plans, including scheduling, budgeting, and resource allocation, resulting in a 15% reduction in overall costs.
- Communicated effectively with multiple stakeholders, including university staff, student organizations, and external vendors, ensuring smooth operations and resolving issues proactively. Promoted events through strategic outreach campaigns, including social media, email newsletters, and poster distributions.

Visvesvaraya Technological University, India

Sept 2021 – May 2022

JSSDeveloper'sGroup

- Organized and conducted workshops on data structures, algorithms, web development, and AI/ML technologies. Hosted coding competitions, webinars, and hackathons, enhancing technical skills and collaboration among participants.
- Mentored peers in technical concepts and career preparation, helping them excel in coding interviews and competitions. Built a vibrant tech community, encouraging participation in national and global coding events.

Visvesvaraya Technological University, India

Oct 2021

GeeksforGeeksStudentChapter

- Led initiatives to encourage open-source contributions among students, organizing workshops on Git, GitHub, and best practices for collaborating in open-source projects. Partnered with GeeksforGeeks to promote open-source awareness through webinars and events, connecting students with industry experts and contributors.
- Mentored students in submitting successful pull requests to popular open-source repositories, contributing to projects in areas such as web development.