Priyam Trivedi

+91 7668192875 | trivedipriyam3@gmail.com | Vellore, India
Portfolio: dev.priyn.com | GitHub: github.com/priyam1206 | LinkedIn: linkedin.com/in/priyam06

SUMMARY

Computer Science and Engineering student at Vellore Institute of Technology with hands-on software engineering experience across backend systems, APIs, real-time applications, AI tooling and industrial IT. Built a self-hosted communication platform, a local-first AI assistant and a custom neural TTS pipeline; interned at Tata Motors on Python/Node-RED monitoring and connected shop-floor systems. Strong foundation in data structures and algorithms, object-oriented programming, DBMS, operating systems and computer networks.

EDUCATION

Vellore Institute of Technology, Vellore | B.Tech, Computer Science and Engineering (Core) | Expected Graduation: May 2028

TECHNICAL SKILLS

Programming: Python, C++, C, JavaScript, SQL
Core CS: Data Structures and Algorithms, OOP, DBMS, Operating Systems, Computer Networks
Backend & APIs: Flask, Flask-SocketIO, REST APIs, WebSockets, MySQL, Linux, Git, debugging, API development
AI/ML & Systems: PyTorch, torchaudio, RAG, local LLMs, Whisper, CUDA, Node-RED, LoRaWAN, Cloudflare Tunnel, Tailscale

EXPERIENCE

Tata Motors Limited, Pantnagar - IT Applications Intern | May 2026 - June 2026

- Developed a real-time industrial safety dashboard for SOS alerts, tracker status, battery levels, event logs and gateway connectivity.
- Built Python and Node-RED monitoring workflows and configured a LoRaWAN worker-safety flow using an Abeeway Smart Badge, Milesight Gateway and UC300 controller.
- Worked with MES displays, barcode traceability, shop-floor data mapping, industrial networking and production-system monitoring.

SELECTED PROJECTS

Priyn - Self-Hosted Communication & Cloud Platform | priyn.com

Python | Flask | Flask-SocketIO | WebSockets | MySQL | Cloudflare Tunnel | Tailscale

- Engineered a self-hosted platform for real-time messaging, cloud storage, media sharing, voice/video communication and AI-assisted workflows.
- Built a Flask-SocketIO backend with WebSocket-based communication and MySQL-backed application data for responsive multi-user interactions.
- Designed authentication, role-based access control and administrative tooling; integrated Luna for contextual assistance and task execution.

Luna - Local-First AI Assistant | luna.priyn.com

Python | RAG | Local LLMs | Whisper | Tool Calling | CUDA

- Built a modular assistant that classifies requests and executes registered tools through structured, schema-based function calls.
- Implemented document indexing, semantic retrieval and contextual memory for knowledge-grounded responses and multi-step tasks.
- Integrated local language models with speech recognition, text-to-speech, retry logic and modular orchestration for voice-driven workflows.

Priyn Labs - Personal Neural TTS / Custom Voice Synthesis

Python | PyTorch | torchaudio | CUDA | Mel Spectrograms | Vocos

- Built an end-to-end speech-data pipeline for recording, validation, segmentation, preprocessing, training and evaluation of a single-speaker neural TTS system.
- Implemented mel-spectrogram feature generation and neural-vocoder reconstruction with GPU-accelerated training and repeatable evaluation workflows.
- Trained and evaluated on 1,054 usable samples (~49 minutes), including unseen-text testing, overfitting analysis and audio-artifact localization.