

Indu Shekhar Jha

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Education

Indian Institute of Information Technology, Design and Manufacturing, Kurnool (IIITK)
Bachelor of Technology in Computer Science and Engineering and IoT (minor)

8.8/10 CGPA
June 2026

Experience

Python/AI Developer Intern

Appscrip

Jan 2026

- Developed a modular **Marketing Analytics & AI-SEO Dashboard** using **FastAPI**, integrating **ClickHouse (OLAP)** and **OLTP** Supabase(PostgreSQL)sources to visualize high-volume traffic data.
- Engineered a **Generative AI Ranking System** that evaluates website performance across various LLMs and chatbots, providing location-specific analytics and actionable optimization suggestions.
- Implemented **Multi-tenancy** and **RBAC** (Role-Based Access Control) to securely manage distinct organizational environments and isolate client data.
- Created a competitor benchmarking tool to analyze keyword gaps and search term dominance, utilizing **Redis** for background task management and daily **Cron jobs** for automated data fetching.

Projects

Software Developer

GoI Project: VBank — Voice-Based Banking Platform

📄 Oct 2023 – Present

- Architected and developed a secure, **voice-activated banking system** using SpeechBrain (ECAPA-TDNN) and InsightFace for real-time multimodal authentication, enabling hands-free transactions such as balance checks, transfers, and history retrieval through a robust API-driven backend.
- Built modular **microservice architecture** with **FastAPI**, separating core banking logic, authentication, and biometric verification services for scalability and fault isolation.
- Implemented **JWT-based session management** with short-lived tokens, rotating refresh tokens, and **RBAC** (role-based access control) to ensure strict privilege boundaries.
- Designed a resilient **transaction orchestration layer** using ACID principles and idempotent APIs, guaranteeing financial data consistency and preventing duplicate operations.
- Ensured codebase was highly reliable and secure by keeping the test coverage above 90%, enforcing code quality with automated tools before every commit, and running both static and dynamic security scans in the CI/CD pipeline.

Scheme-Saathi — AI Public Service Platform

📄 Jan 2025

- Engineered a production-grade **Flask backend** with fully RESTful design, **Pydantic-based validation**, and OpenAPI documentation, enabling non-blocking, high-throughput service for 1,000+ users.
- Designed modular service layers and implemented the **Repository + Unit of Work patterns** with **SQLAlchemy ORM**, ensuring maintainability and database-agnostic flexibility.
- Integrated **Redis caching, rate limiting, and Celery-based background tasks**, improving system throughput by 40% and enabling asynchronous data synchronization with third-party APIs.
- Implemented **OAuth2 JWT authentication** with role-based access control (RBAC) and secure configuration via environment-based secrets management.
- Designed a lightweight, responsive frontend using **TailwindCSS + Alpine.js**, providing multilingual support and graceful degradation for low-bandwidth users.

TiniMilitia-Shooter — 2D Shooter Engine

📄 Mar 2024

- Implemented a high-performance 2D shooter engine in modern **C++17** using **OpenGL + GLFW**, emphasizing resource safety via RAII and smart pointers.
- Designed clear OOP class hierarchies (**Gunman, Enemy, Bullet**) employing inheritance, polymorphism and value semantics for maintainable entity management.
- Built the core game loop, deterministic update/render cycles, input handling and collision detection optimized to sustain **60 FPS** with 100 active entities.
- Engineered modular subsystems (platform, rendering, game logic) with minimal coupling, enabling easy feature extension and unit/testability.
- Delivered cross-platform build automation with **CMake**, implemented performance improvements (object pooling, batched rendering, sprite atlas).

Technical Skills

Programming: Python | C | C++ | JavaScript | Shell

Development: Flask | FastAPI | SQL | HTML | CSS | TailwindCSS | RESTful APIs | LlamaIndex | Agentic RAG | Google ADK

Development Tools: Git | Docker | Linux | Postman | CI/CD | GitHub

CS Core: Object-Oriented Programming (OOP) | OS | Database Management Systems (DBMS) | Computer Networks |DSA

Achievements

LeetCode weekly contest 469(Rank 1298/30390)

Credentials 2025

NPTEL:Topper(Rank 3/13763)

Credentials 2025

Student Excellence Award(Rank 1/320 IIITDM 22')

Credentials 2023

JNV Selection(Top 80/4000)

2013

Certifications

HackerRank – SQL (Advanced) Certificate

Credentials

CS50x – Intro to Computer Science (Harvard)

Credentials

C Programming Training Certification(IITB)

Credentials

NPTEL – Industry 4.0 & IoT (Top 1%)

Credentials