AKASH KUMAR SINGH

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LinkedIn • GitHub • Leetcode • GeeksforGeeks

EDUCATION

IIIT Manipur	B.Tech, Computer Science and Engineering	8.23/10	*2022 - 2026*
PGSS School, Kushinagar	Class XII (CBSE)	95.4%	*2019 - 2021*
JNV, Kushinagar	Class X (CBSE)	97.4%	*2014 - 2019*

EXPERIENCE

- **Software Developer Intern**   **Truxie (Prayas Logistics)**   *05/2025 – 11/2025*

  - Developed backend services using **NestJS**, **TypeScript**, and **PostgreSQL**, handling transactions with concurrency control and pipeline-based data processing architecture.

  - Created automated workflows for document management using **Supabase** and **cron schedulers** for periodic data refreshes and system tasks.

  - Wrote comprehensive **Jest unit and e2e tests**, and designed **50+ REST APIs** following clean architecture patterns in an **Agile** environment.

SKILLS

Languages:	JavaScript, TypeScript, Python, C/C++
Frameworks & Libraries:	Node.js, Express, NestJS, Jest, React, FastAPI, PyTorch, Numpy, Pandas
Databases:	PostgreSQL, MongoDB, MySQL, Supabase
Cloud & DevOps:	Docker, AWS (EC2, VPC), CI/CD, Git, GitHub
Core Concepts:	OOPS, Operating Systems, DBMS, Computer Networks, Linux

PROJECTS

- **NeuroSonic Audio CNN**   *PyTorch, NumPy, Pandas, FastAPI, Docker, Python*   GitHub

  - Developed an environmental sound classifier using a **ResNet-based CNN** on ESC-50 dataset (2,000 samples, 50 classes), achieving **80–85% accuracy**.

  - Enhanced model performance by **15%** through data augmentation with **mel-spectrogram transformations**, pitch shifting, time stretching, and mixup regularization.

- **Semantic Book Recommender**   *Python, Hugging Face, LangChain, ChromaDB, Transformers*   GitHub

  - Created a recommendation system with **sentence-transformer embeddings** for semantic search, **zero-shot classification** for genres, and **sentiment analysis** across 7,000+ books.

  - Integrated **ChromaDB vector database** for fast similarity search with preprocessing pipeline for text cleaning, tokenization, and normalization using **Pandas** and **NumPy**.

- **SwiftChat**   *MongoDB, Express, React, Node.js, Socket.IO, PeerJS, Zustand*   View   GitHub

  - Designed a real-time chat platform with **Socket.IO messaging**, group spaces, **WebRTC video calling**, and shared video rooms with independent playback controls.

  - Added **presence tracking**, automatic video cleanup, and state management with **Zustand** for handling user interactions and UI updates.

ACHIEVEMENTS

- Achieved 1631 LeetCode rating (top 19% globally) by solving 500+ DSA problems across LeetCode and GFG.

- Contributed 300+ commits on GitHub, strengthening backend systems and applying version control best practices.