

EDUCATION

- **Friedrich-Alexander-Universität Erlangen, Germany** 2025 – present
Master's of Science in Computational Engineering
- **Guru Gobind Singh Indraprastha University, Delhi** 2018 – 2022
Bachelor of Technology in Information Technology CGPA: 8.7/10

EXPERIENCE

- **Jio** November 2024 – October 2025
Software Development Engineer II Mumbai, Maharashtra
 - Engineered speech-to-text and text-to-speech pipelines for mixed-reality wearable devices using Node.js, gRPC, and WebSockets achieving sub-500ms latency.
 - Designed observability platform using OpenTelemetry, Loki, and Grafana for distributed log aggregation and real-time service monitoring.
 - Built ML-ready conversation history pipeline with asynchronous message queuing, audio buffer processing, and WAV serialization.
 - Collaborated with AI/ML and hardware teams to integrate voice-driven interactions into augmented-reality features.
- **WeDevx.co** March 2023 – September 2024
Software Development Engineer Bishkek, Kyrgyzstan
 - Developed subscription management system with Stripe API integration increasing annual revenue by \$500K+.
 - Deployed custom code execution engines replacing third-party services, cutting operational cost to zero with 99.95% uptime.
 - Implemented rate-limiting and bot-detection algorithms blocking 97% of malicious signups.
 - Built CI/CD pipelines with automated quality checks improving deployment frequency from weekly to daily.
- **Xane.ai** June 2022 – February 2023
Backend Developer Gurugram, Haryana
 - Developed RESTful APIs enabling asynchronous communication with ML servers processing 50K+ daily requests at 99.5% success rate.
 - Designed optimized PostgreSQL schemas reducing query latency from 800ms to 120ms.
 - Built asynchronous file-processing pipeline generating bulk CSVs supporting 100K+ records per task.
 - Developed fault-tolerant backend components with strong validation and error-handling for ML workflows.

FEATURED PROJECTS

- **Flight Route Analysis System**
 - Implemented Dijkstra's shortest path algorithm with weather penalties; integrated OpenSky and AviationStack APIs for real-time flight tracking.
 - Built React frontend with Leaflet maps for interactive visualization.
 - Designed PostgreSQL schema with PostGIS extension for geospatial queries; implemented Haversine formula and great-circle calculations for accurate routing.
 - **Tech Stack:** React, Express.js, PostgreSQL/PostGIS, TypeScript | **Link:** <https://tinyurl.com/ftchp258>
- **Curl-Logger (NPM Package)**
 - Express.js middleware for automated HTTP request logging and metadata capture.
 - Implemented request metadata logging and CSV export reducing debugging time with 500+ weekly downloads.
 - **Tech Stack:** Express.js, Node.js | **Link:** <https://www.npmjs.com/package/curl-logger>

TECHNICAL SKILLS

Languages: JavaScript, TypeScript, Python, C/C++

Frameworks: Node.js, Express.js, Fastify, Nest.js, Loopback.js, FastAPI, Django, Flask, LangChain, Hugging Face

Databases & Caching: PostgreSQL, MySQL, MongoDB, Redis, Pinecone

DevOps & Cloud: Docker, Kubernetes, AWS, GCP, Azure, Cloudflare, Nginx, CI/CD

Observability: OpenTelemetry, Grafana, Loki, Datadog

Tools: Git, GitHub, Azure DevOps, Linux, GitLab, gRPC, WebSockets, Rest, LLM, RAG