Ashish

github.com/app-src ⬡

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EDUCATION

Guru Gobind Singh Indraprastha University   Delhi, India
Bachelor of Technology in Information Technology; **CGPA:** *8.83/10*   *2020 – 2024*

WORK EXPERIENCE

Data Strategy Unit ⬈ Ministry of Science and Technology | Project Associate   Dec 2024 - Present
- Built **ETL pipelines** in **pandas, scikit-learn** to analyze 200+ government schemes from different data sources
- Developed **RAG-based GenAI chatbot** using **Ollama, HuggingFace Transformers, FAISS**, enabling ministerial staff to query policy data seamlessly
- Deployed REST APIs powering the national **e-utthan portal**, integrating datasets across 35+ ministries

Zaptics Research ⬈ Incubated at IIT Kanpur | Junior Software Engineer   Feb 2024 - Dec 2024
- Engineered **Android SDK** to seamlessly sync data from in-house **VCU**, adopted by **3+ leading EV OEMs**.
- Established **CI/CD pipeline** using **GitHub Actions**, automating publishing, testing, and deployment
- Designed and implemented a secure internal **bootloader tool** for **STM32-based devices**, enabling safe firmware flashing across **1600+ devices**. Built a custom **state machine** with a **handshaking protocol** ensuring communication reliability and update integrity

IIIT Delhi ⬈ | Research Intern   May 2023 - Oct 2023
- Built an **Uber-like client app** for **Project ALIVE**, a last-mile vehicle platform supported by **MEITY, Government of India**, enabling seamless ride booking and fleet management
- Developed an **automated decision system** for last-mile autonomous vehicles using **ROS**, incorporating **fault detection logic** and **multi-sensor data ingestion** to support intelligent navigation using LIDAR-based localization

Escorts Kubota Limited ⬈ | Fixed Term Trainee   Sep 2022 - Feb 2023
- Developed a solution for **100+ farmers** to track farms using solar powered multi-model IoT system
- Made Android application to monitor farms in real-time and implement 20+ automated flows for a **NIFTY 200** company

PROJECTS

BeatLight ⬈ | Sync Flashlight with Beat of Ambient Music   Nov 2024
- Implemented compute intensive FFT on audio data to extract frequency domain features, deep delved in Dispatchers
- Syncs mobile's flashlight with the beat from ambient music around you   Published on Google PlayStore

Virya ⬈ | AI Yoga Trainer App, Practice yoga from the comfort of your home   Jul 2023
- Posture correction app using **Google ML Kit + PyTorch** for real-time pose estimation and feedback
- Integrated Firebase for seamless auth and ensured **on-device inference** for privacy and reliability

Livpol ⬈ | Computer Vision based queue management tool for election   Feb 2023
- Designed **OpenCV-based tool** for election booths that estimates and notifies users about queue waiting time in real time
- Showcases AI for **public service delivery** by improving voter experience and planning by predicting voting patterns

Flipkart GRID 3.0 ⬈ | National Finalists   Aug 2021 - Feb 2022
- Ranked among top 10 national finalists out of **9000+ registrations**, and was able to complete the assigned task
- Engineered self calibrating robust Computer Vision application and led software part of the team
- Implemented image processing using **OpenCV** on live feed, derived data used to implement custom pathfinding algorithm, **PID** for differential wheeled bots. Controlled 4 bots simultaneously, effectively

ACHIEVEMENTS

- **Amazon ML Summer School'22**: Selected in top 1% nationally to be trained by industry specialists in ML
- **Won Over a dozen International and National Events**: Including HackBMU 6.0, 1st Runner-up
- **Techkriti (IIT Kanpur)**: Stood first in Development hackathon three years in a row
- **SigFest'23**: Aced and got first position in Open Innovation Challenge and 3rd position in Robosoccer
- **Considition'22**: Secured 4th rank internationally in a ML hackathon
- **President Robogyan** : Led the official robotics society of the college for 2 years, as President and Vice President. Mentored 70+ teams, organized 10+ events, led 270+ members
- **Android Lead, Google Developer Student Club**: Took sessions ⬈ on Jetpack Compose Android with 3000+ views
- **SOMT ⬈**: Achieved 19th rank in Delhi in the esteemed State-Level Science Olympiad, among a large pool of participants

SKILLS

- **ML/AI:** PyTorch, HuggingFace, Transformers, LangChain, Ollama, FAISS, RAG, scikit-learn, pandas
- **Infra:** FastAPI, REST APIs, CI/CD (GitHub Actions), AWS, SQL, PostgreSQL, Graph Databases, Room DB
- **Programming:** Python, Java, C/C++, Kotlin
- **Others:** OpenCV, Firebase, Embedded Software Development