

Aksh Agrawal

+91-7647988651
akshagr10@gmail.com
<https://github.com/aksh-agrawal>
<https://www.linkedin.com/in/akshagr10/>

Bachelor of Technology (Hons.), Computer Science & Engineering (Data Science)
University Teaching Department, CSVTU, Bhilai

Summary

Computer Science (Data Science) undergraduate passionate about Artificial Intelligence, Machine Learning, Open Source, and impactful technology development. Experienced in applied AI research, open-source contributions, and hackathons. Dedicated to creating scalable solutions and empowering tech communities.

Education

B.Tech (Hons.) CSE (Data Science)	University Teaching Department, CSVTU Bhilai (CSVТУ) - 7.19 (CGPA)	2024-2028
Senior Secondary (12th)	V.C.S.E.M School, CG Board — 77.4%	2024
Secondary (10th)	V.C.S.E.M School, CG Board — 80.2%	2022

Experience & Competitions

Smart India Hackathon (SIH) 2024 — Internal Round *Mar 2024 / Chhattisgarh, India*
Hackathon Team Member

- AI-powered Safety Wearable for Delivery Workers using AI & IoT for real-time navigation, accident detection, health monitoring, and emergency alerts; improved worker safety and situational awareness.

Novmesh 2.0 — Hackathon, SSIPMT *Mar 2025 / Raipur, India*
Hackathon Participant

- Smart Goggles for the Visually Impaired: AI-based assistive prototype with real-time obstacle detection, face recognition, emergency alerts, and voice interaction.

Ideathon — IIIT Hyderabad *Apr 2024 / Online / Hyderabad*
Selected Participant (Qualified to Round 2)

- Waste-to-Gold: Lithium Battery Recycling — concept for collecting, recycling, and monetizing e-waste (lithium-ion). Qualified among top entries nationwide.

Projects

Smart Goggles for Visually Impaired *Apr 2025 / Team Lead & Developer / Chhattisgarh, India*

- Terminal-based assistive system with object detection (YOLO), known-person recognition, real-time voice alerts, and SOS with location-based SMS.

"easy-opencv-wrapper" – OpenCV Simplification Library (Published on PyPI) *june 2025 / Solo Developer / Chhattisgarh, India*

- Lightweight Python package providing an intuitive interface over OpenCV for beginners and rapid prototyping of computer vision projects.

- Developed a Python. Platform that combines ratings from competitive programming sites with verified course completions, applying weight and decay factors for fair ranking. Currently, it is not completed.

Event Report Generator — GenAI*Apr 2025 / Solo Developer / Online*

- Streamlit-based tool using LangChain and Gemini APIs to autogenerate LaTeX PDFs from minimal event inputs (logos, photos, structured formatting).

Technical Skills

Languages: Python, C++, C, JavaScript, HTML, CSS, R**Frameworks/Libraries:** NumPy, OpenCV, Pandas, Matplotlib, Sns, YOLOv5, Streamlit, React, Tailwind CSS**Tools/Platforms:** Git, GitHub, Arduino IDE, VS Code, Google Colab, LangChain, Gemini API, Raspberry pi**Embedded Systems:** Arduino, IoT Sensors, Raspberry Pi, Ultrasonic Sensors, Buzzer Modules, Camera Modules**AI/ML:** Face Recognition, Object Detection, NLP, Prompt Engineering, Image Captioning**Others:** LaTeX, REST APIs, Speech Recognition, Text-to-Speech (TTS), OCR, PDF Report Generation**Positions of Responsibility**

Technical Secretary, Dept. of CSE (Data Science), CSVTU UTD*2025–Present**Student Council Member*

- Organize podcasts, workshops, and coding events to strengthen the technical culture.
- Led the execution of *Tech36*, a 2-day state-level event (Robo Hurdle, Hackathon, Ideathon, Technical Quiz, etc.).

Core Team Member — Technical Events, Tech36 (State Level Technical Fest) *2025 / Event organizer*

- Managed logistics, participation, and technical operations for large-scale events.

Workshop Organizer — “Arduino for beginners” (UTD)*Apr 2025 / Instructor & Coordinator*

- Designed and delivered a 2-hour beginner-friendly session on Arduino and embedded systems.

Team Leader — Hackathons & Ideathons (Various)*2025 / Mentor & Lead Developer*

- Led teams at SIH 2024 (wearable worker safety device), Novmesh 2.0, and the IIIT Hyderabad Ideathon (round 2).
- Designed prototypes for assistive devices, lithium battery recycling, and AI-integrated systems.

Achievements

- Qualified for selection rounds at IIIT Hyderabad Ideathon 2025 (NGO poster on Lithium Battery Recycling).
- Qualified for the internal round of Smart India Hackathon (SIH) 2024 for a safety device for delivery workers.
- Finalist in Novmesh 2.0 Hackathon 2024 with a working prototype in AI-assisted technology.