# Kaushika

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#### Education

Vellore Institute of Technology

Bhopal, India Expected September 2026

Bachelor of Computer Science Engineering with Minors in Cloud Automation

CGPA: 8.60/10

Relevant Coursework: Cloud Architecture, Distributed Systems, Cybersecurity, AI/ML

#### **Skills**

Technical Skills: Python, Java, JavaScript (React.js, TypeScript), MATLAB, SQL/NoSQL

Cloud/DevOps: AWS, GCP, Docker, Firebase

Frameworks: TensorFlow, Flutter

Soft Skills: Technical Leadership, Cross-Functional Collaboration, Entrepreneurial Mindset

## **Projects**

#### Sign Language Recognition AI | Full-Stack Developer

May 2025

- Developed a cross-platform solution using OpenCV (Python) for real-time gesture capture and TensorFlow for interpretation, achieving 91.4% test accuracy on dataset as well as enabling real-time translation via mobile/web cameras
- Deployed scalable React.js/Flutter frontend with WebRTC integration, serving 500+ monthly active users
- Enhanced accessibility by processing 9/10 signs correctly in real-world tests with hearing-impaired beta users
- Tech Stack: Python, OpenCV, TensorFlow, CNN-LSTM, React.js, Flutter, WebRTC, Firebase

# Autonomous Object-Transport Robot | Full-Stack Developer

June 2024

- Built award-winning robot from scratch Engineered an AI-controlled robot that responded to laptop commands and remote control, mastering 5+ movement functions (walking, running, spinning) and winning 1st place in an international level where robots raced while transporting objects
- Tech Stack: Python, ROS, OpenCV, TensorFlow Lite, YOLOv3, Arduino (RF remote)

### Mental Health Platform - Recommendation System | Front-End Developer

Feb 2024

- Led front-end development of a WCAG-compliant React.js/TypeScript UI, scaling the platform to 500+ active users in 6 months by optimizing performance (30% faster load times) and accessibility.
- Established an AI-powered recommendation engine that increased user engagement by 25%
- Tech Stack: React.js, TypeScript, Docker, AWS, GCP, WCAG 2.1, Figma

### Experience

### India Space Lab | Space Tech Intern

Dec 2024 - Jan 2025

- Architected a hybrid-electric drone propulsion system, improving energy efficiency by 15% via GCP simulations
- Developed a cost-modeling framework for AI drone swarms using GCP Vertex AI, reducing mission costs by 30%

#### Microsoft Technical Club, VIT Bhopal | Technical Event Lead

2022-2023

- Organized 10+ workshops (Python, Azure AI, ML) for 500+ students, increasing club engagement by 40% through handson labs and post-event project submissions
- Scaled 3 hackathons (200+ participants) with Azure Cloud challenges; top teams deployed live endpoints

### Extra-curricular & Achievements

#### The National Highways Authority of India (NHAI) Hackathon 2025 – AI for Safer Highways

India 2025

• Led the development of an AI-driven Foot Over Bridge detection system, to enhance pedestrian safety on highways & spearheaded prototyping and pitch delivery for the winning solution, recognized for its core principle: "Safety before luxury."

1st Place at International Robotics Competition

UAE 2024

• Constructed an autonomous robot that outperformed 25 teams in an object-transport challenge, showcasing handson AI/ML implementation and computer vision expertise

#### National Art Champion | Gulf National Contest

2018

• Won 1st place among 200+ participants in a 30-minute live competition, judged on creativity under time constraints.

### Certifications & Training

- Robotics & Cybersecurity Immersion University of Wollongong
- DevOps Fundamentals and Cyber Security IBM

### Languages

English, Hindi, Arabic