Akshat Garg

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SUMMARY

Third-year Computer Science student with hands-on experience in AI, IoT, and full-stack web development. Developed multiple projects leveraging machine learning (TensorFlow, OpenCV), cloud backends, and IoT sensors to solve real-world problems in healthcare, safety, and agriculture. Proficient in Python, Java, C++, and JavaScript (React, Node.js). Excellent problem-solving skills, team collaboration, and quick learning abilities, and multilingual (English, Hindi, basic Japanese). Seeking opportunities to apply cutting-edge technologies to create impactful solutions.

TECHNICAL SKILLS

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

Web/Cloud Technologies: React.js, Node.js, Express, FastAPI, HTML/CSS, REST APIs, Firebase, MongoDB, SQL

Machine Learning & Tools: TensorFlow, Keras, scikit-learn, OpenCV, Pandas; Git, Docker, Linux

PROJECTS

AgriSense – Smart Farming System   Apr 2025
IoT & Machine Learning Project   *ESP32, React, MongoDB, Python*
- Developed an IoT-based agriculture automation system with sensor nodes (soil moisture, temperature, humidity) communicating to a Node.js/Raspberry Pi backend and a React.js dashboard for real-time farm monitoring.
- Implemented ML models to predict crop health and irrigation needs, enabling early disease detection and data-driven irrigation. Optimized resource usage and reduced expected crop losses by 20% through proactive alerts and analytics.

ThermoSense – Cross-Platform Sensor Dashboard   Jul 2025
IoT/ML System Monitoring Project   *FastAPI, React, Docker, Random Forest*
- Engineered a cross-platform device health dashboard with a Python FastAPI backend and React front-end (containerized with Docker). Integrated OS-level sensors (macOS power metrics, Windows WMI) to capture battery and CPU temperature data in real time.
- Built a Random Forest model analyzing thermal data to predict battery health trends with ~90% accuracy. Ensured a responsive UI and seamless performance across Windows and macOS, enabling proactive thermal management for users.

ShaktiPath – Women Safety Navigation App   May 2025
Hackathon Project – Safe Route Planning   *React (TypeScript), Supabase, Leaflet APIs*
- Developed a web application that provides AI-powered safe route planning, prioritizing well-lit, secure paths over shortest distance. Integrated Google Maps, OpenCage, and MapBox APIs to analyze five safety factors (lighting, CCTV, police proximity, crowd density, high-risk areas) for any given route.
- Implemented real-time GPS tracking and an SOS alert feature for emergencies, allowing one-tap notifications to trusted contacts. Enhanced personal safety for users by guiding them through safer routes and real-time alerts on potentially unsafe zones.

IntelliQrHelp – Smart Emergency Response System   Jan 2025 – Feb 2025
Health Hackathon Project   *React, Firebase, IoT (ESP8266), Telegram API*
- Co-developed an emergency platform that instantly delivers critical medical information to first responders via QR codes. Implemented secure, personalized QR codes (using QR API) linked to user profiles in Firebase Firestore, providing data like blood type, allergies, and medical history upon scan.
- Integrated a Telegram bot and ESP8266-based IoT SOS button to trigger real-time alerts to hospitals and emergency contacts. Accelerated emergency response by minimizing information retrieval time at the 2025 VIT–Johns Hopkins Health Hackathon

SecondSons – Unified Local-Commerce Super-App   Jul 2025 - Ongoing
Full-Stack Product   *Food Ordering, Services on Rent, Cabs, Stays/Rentals, Quick Commerce*
- Architected a single platform combining five verticals: **food ordering (Zomato-like)**, **people on rent / on-demand services (Urban Company-like)**, **cab booking (Ola-like)**, **stays & long-term house rentals (Airbnb-like)**, and **quick commerce (Blinkit-like)**—with one login, cart/booking flow, and order tracking.
- Built vendor onboarding, catalog/inventory, dynamic pricing, slotting & availability, address/geo lookups, coupons, payments, order lifecycle, and dispute/resolution flows to **promote local businesses** and keep commissions low.
- Led end-to-end development **solo** — product design, front-end, backend, database schema, and deployments — ensuring clean modular services and reusable UI components across all verticals.

EDUCATION

VIT Bhopal University
B.Tech in Computer Science and Engineering (CGPA: 8.42/10)

Bhopal, M.P., India
Sep 2023 – May 2027 (Expected)

St. Luke's Sr. Sec. School, Solan
Class XII (CBSE), 83%

Solan, Himachal Pradesh, India
2023

St. Luke's Sr. Sec. School, Solan
Class X (CBSE), 90.17%

Solan, Himachal Pradesh, India
2021

CERTIFICATIONS

Oracle Certified Java Foundations Associate – Achieved global certification in core Java programming fundamentals.

NPTEL: Introduction to Machine Learning (12-week IIT course) – Government-recognized certification in ML, covering algorithms and applications.

Google: Bits and Bytes of Computer Networking (Coursera) – Completed networking fundamentals course covering OSI model, TCP/IP, and network services.

Postman API Fundamentals Student Expert – Gained expertise in API development and testing, validated by Postman Student Expert program.

TechBairn Full-Stack Web Development Program (Bronze) – Intensive hands-on training in MERN stack web development with a Bronze certification.

HackerRank SQL (Basic) Certificate – Demonstrated proficiency in basic SQL queries and database manipulation on HackerRank platform.

Apna College DSA Course (Alpha) – Completed a comprehensive Data Structures and Algorithms program in Java, strengthening problem-solving skills.

PW Skills: Decode DSA with C++ – Underwent in-depth training in algorithms using C++, focusing on optimized solutions for coding interviews.

MathWorks MATLAB Onramp – Finished introductory MATLAB course, building a foundation in scientific computing and simulation.

Great Learning Linux Basics – Acquired fundamental knowledge of Linux commands, system navigation, and shell scripting.

Great Learning: Prompt Engineering for ChatGPT – Learned advanced techniques for designing effective prompts for large language models (LLMs).