Akshit Kumar Tiwari

Computer Science and Engineering Student

akshitktiwari2005@gmail.com
LinkedIn: Akshit Kumar Tiwari
GitHub: Akshit Kumar
LeetCode: Akshit
Codeforces: Akshit Kumar

Education

SRI SIVASUBRAMANIYA NADAR COLLEGE OF ENGG.
B.E. — Computer Science and Engineering
CGPA: 7.929

HOLY MISSION SECONDARY SCHOOL
12th: 96%

DAV PUBLIC SCHOOL BSEB COLONY
10th: 92.6%

Technical & Academic Skills

Programming: Python, C++, Java, SQL
Machine Learning: Supervised & Unsupervised Learning, Regression, Classification, Clustering (K-Means), Model Evaluation (Accuracy, Precision, Recall, MAE, MSE), Feature Engineering
Libraries & Tools: Scikit-learn, PyTorch, Pandas, NumPy, OpenCV (Basic), Matplotlib, Git
Computer Science Core: Data Structures & Algorithms, Object-Oriented Programming, Operating Systems, DBMS, Computer Networks
Backend Development: Java Spring Boot, REST APIs, JDBC

Certifications

Programming in Modern C++ — NPTEL (Completed)
Affective Computing — NPTEL (Completed)
Foundation for Virtual and Augmented Reality Systems — NPTEL(Completed)

Languages

English, Hindi

Academic Interests

Coding Contests, Artificial Intelligence, Machine Learning, Deep Learning, Cloud Computing, Web and App Devolvement, Discrete Mathematics

Summary

Computer Science student with strong problem-solving skills and hands-on experience in building intelligent systems, full-stack applications, and machine learning solutions. Developed projects spanning AI, computer vision, and scalable web platforms including social discussion systems and gamified learning environments. Passionate about designing impactful software and continuously exploring new technologies. Seeking opportunities to contribute to innovative engineering and technology teams.

Achievements

- 2nd Runner-up — Annual Hackathon **SRM KTR HackSummit 6.0**.
- Best UI/UX Award — **SRM KTR HackSummit 6.0**.
- Qualified for Internal Hackathon — **Smart India Hackathon (SIH) 2025–26**.
- Active competitive programmer with Codeforces rating **1329** and CodeChef rating **1352**. Solved 200+ algorithmic problems across platforms, strengthening problem-solving and optimization skills.
- Solved 150+ LeetCode problems; strengthened data structures and algorithms.
- Qualified Pre-Regional Mathematics Olympiad 2019.

Projects

EduQuest (Gamified Learning) 2025
(AR/VR, Blender, Three.js, Python, AI, Gamification)

- Conceptualized and developed an immersive curiosity-driven learning multiverse combining AR/VR environments, gamification mechanics, and AI-assisted interaction.
- Designed interactive "Knowledge Worlds" (Mathverse, Scienceverse, etc.) featuring 3D puzzles, escape rooms, and scavenger-hunt style missions to encourage exploratory learning.
- Implemented an AI-based adaptive learning assistant ("Mirror Twin") using Gemini API to provide contextual hints and personalized problem-solving guidance.
- Introduced competitive multiplayer modes such as "Knowledge Heists" and "FPS Quiz Battles" to increase learner engagement and retention.
- Awarded **2nd Runner-Up** and **Best UI/UX Award** at **SRM KTR HackSummit 6.0**; selected for the internal round of **Smart India Hackathon (SIH) 2025–26**.

Rumor (Social Discussion Platform) 2026
(Next.js, React, Node.js, MongoDB, Authentication)

- Built a full-stack social discussion platform enabling users to create accounts, publish discussions, and interact with community-driven content.
- Implemented secure user authentication and account creation workflows with protected routes and session-based access control.
- Designed modular UI components using Next.js and React to support dynamic rendering of posts and responsive user interactions.
- Developed backend APIs for user management, content posting, and database operations using Node.js and MongoDB.
- Structured the project with a scalable folder architecture separating frontend components, API routes, and database logic for maintainability.

Infrared Human Action Recognition 2026
(Python, OpenCV, PyTorch, Scikit-learn, Computer Vision)

- Built a computer vision pipeline to classify human actions from thermal/infrared video datasets under low-visibility conditions.
- Performed preprocessing including frame extraction, grayscale normalization, and noise reduction to improve feature consistency.
- Designed feature-based classification workflows and evaluated models using accuracy metrics and confusion matrix analysis.
- Explored state-of-the-art research in action recognition and sequence modeling techniques for video understanding.

Santorini Board Game (Python Arcade) 2025
(Python, Arcade Library, Game AI)

- Developed a complete digital implementation of the Santorini strategy board game using the Python Arcade framework.
- Implemented a heuristic-based AI opponent to simulate intelligent gameplay decisions.
- Designed an interactive GUI with animations and sound effects to enhance the user experience.
- Improved gameplay reliability through collaborative debugging, feature refinement, and modular code structuring.