AMAN GUPTA

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Third-year Computer Science student with expertise in Machine Learning and Software Engineering. Skilled in building scalable ML models, developing full-stack applications, and solving complex problems using data-driven approaches. Passionate about leveraging technology to create innovative solutions.

EDUCATION

Kalinga Institute of Industrial Technology - Bhubaneswar Expected May 2026
Bachelor of Technology in Computer Science and System Engineering

- **GPA:** 8.2/10
- **Relevant Coursework:** Machine Learning, Data Structures, Algorithms, Linear Algebra, Computer Vision, Operating Systems, Computer Architecture, Object-Oriented Programming

PROJECTS

Fingerprint-Based Blood Group Classification | *TensorFlow, Keras, OpenCV, Docker* | March 2025

- Designed ensemble deep learning system (CNN + ResNet50 + VGG16) achieving 92.2% accuracy in blood group classification from fingerprint patterns
- Engineered preprocessing pipeline with advanced augmentation (25% shear/rotation) and deployed as Flask web app with 98% inference reliability
- Developed non-invasive solution reducing blood tests, validated on 6,000+ clinical fingerprint samples.

Diabetes Risk Prediction System | *Python, Numpy, Flask, scikit-learn, Bootstrap* | June 2024

- Developed ML model achieving more than 80% accuracy using Random Forest algorithm with automated feature scaling and outlier detection
- Implemented data quality checks and warning system for unreliable inputs to ensure prediction reliability
- Created user-friendly interface with automated risk assessment and personalized medical recommendations

Student Performance Prediction System | *Python, Flask, scikit-learn, AWS* | Jan 2025

- Built ML pipeline achieving 90% R^2 accuracy through automated model selection and hyperparameter tuning
- Developed Flask web app with real-time predictions and form validation, deployed on AWS Elastic Beanstalk for scalability
- Implemented automated data preprocessing pipeline for feature engineering and model training/prediction workflows

EXPERIENCE

AISOC KIIT SOCIETY | *Machine Learning Associate* Sep 2024 – Present

- Built medical cost prediction ML pipeline with 86.6% R^2 score using scikit-learn and automated preprocessing
- Led ML workshops and mentored 20+ junior members in regression modeling and data analysis
- Organized technical hackathons reaching 200+ participants across the university

SKILLS

Languages: Python, Java, C, C++, JavaScript, SQL
Machine Learning: PyTorch, TensorFlow, Scikit-learn, NumPy, Pandas, Keras, HuggingFace
Software Development: Flask, FastAPI, HTML/CSS, CI/CD Pipelines
Tools & Platforms: Git, Docker, AWS, Linux, Jupyter, VS Code

CERTIFICATIONS

Stanford University | Machine Learning Specialization
Imperial College London | Mathematics for Machine Learning Specialization
University of California San Diego | Data Structures and Algorithms Specialization

LEADERSHIP AND INVOLVEMENTS

Women TechMakers | *Volunteer* Mar 2024 - Present

- Co-organized technical workshops and mentored 100+ participants, promoting diversity in STEM fields

Stanford Code in Place (CS106A) | *Participant* Apr 2024 - May 2024

- Selected from competitive applicant pool to master Python, OOP concepts, and algorithmic problem-solving
- Completed project-driven curriculum under Stanford University's renowned CS department