

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

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

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

June, 2024

- Developed ML model achieving more than 80% accuracy using KNN 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

Aerial Road Segmentation | PyTorch, OpenCV, Deep Learning, Matplotlib | 

Dec, 2024

- Developed U-Net model with EfficientNet backbone achieving accurate road segmentation on Massachusetts Roads Dataset
- Built end-to-end training pipeline with custom data augmentation and loss functions, reaching 65% Dice score
- Implemented efficient data preprocessing and batching system handling 1500×1500 pixel aerial imagery

EXPERIENCE

AISOC KIIT | 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

LEADERSHIP AND INVOLVEMENTS

Women TechMakers | Volunteer

Mar, 2024 - Present

- Co-organized tech workshops and mentored 100+ participants, advocating STEM diversity.

Stanford Code in Place (CS106A) | Participant

Apr, 2024 - May, 2024

- Selected among competitive applicants to master Python, OOP, and algorithmic problem-solving in Stanford's project-driven curriculum.