Akshay Kumar

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Education

National Institute of Technology, Hamirpur July 2024
Bachelor and Master of Technology in Computer Science (GPA: 9.41/10.00 and 9.20/10.00) *Hamirpur, Himachal Pradesh*

- **Relevant Coursework:** Data Structures and Algorithms (C++), Operating System, DBMS(Database Management System), OOPs(Object Oriented Paradigms.)

Experience

Bosch Global Software Technologies Jan 2024 – June 2024
Student Trainee Internship *Bengaluru, Karnataka*

- Performed the SIL(System-In-Loop) Testing on the Surround View System(SVS) functionality and visualization of Audi Car Model.
- Performed Unit Testing on the Surround View System(SVS) functionality of Suzuki Car Model using C++ and achieved 80% code coverage.
- Optimized the number of faces/dimensions in a 3D-Suzuki Car Model through Blender and reduced upto 60% to render on the limited size GPU.

G.L Bajaj Institute of Technology and Management July 2024 – Dec 2024
Assistant Professor *Noida, U.P*

- Developed and delivered lectures, created assignments, and took practical labs of subjects : Web Designing and Database Management System.
- Taught undergraduate course : Object Oriented Programming with C++.
- Managed the online time table system of the CS-DS(Data Science) Department.

Academics

- **Bronze Medalist** of NIT Hamirpur in Computer Science and Engineering Dual Degree(B.Tech 2024)
- Conference Paper : **Improving Autism Spectrum Disorder Detection in Children: Leveraging Machine Learning Methods on Questionnaire Data** has been presented and accepted in ICMLBDA (International Conference on Machine Learning and Big Data Analytics) Kurukshetra.

Projects

Autism Spectrum Disorder Detection in Children | *Python,Tensorflow, Image Pre-processing, CNN*

- Detection of autism through facial expressions of children using pre-trained deep learning models such as VGG-16, VGG-19, MobileNet, ResNet50 and achieved accuracy of 96.58% with the increment of 1.58% as compare to the other previous studies.
- Detection of autism through eye-scan movements using the different pre-trained deep learning models and achieved 95% accuracy better than the other previous studies.
- Detection of autism through question-answering using the traditional machine learning algorithms such as Logistic Regression, Random Forest, SVM, KNN , Decision Trees and deep leaning model ANN achieved 99% accuracy.

Speed-Breaker and Potholes detection | *Python, Tensorflow, Image Pre-processing, CNN*

- Developed a classifier which detects speed-breaker and pothole in an image to alert the drivers using the different deep learning methods and achieved accuracy of 98.33% surpasses the previous approaches.

Technical Skills

Languages: C++, C, SQL, Python, HTML.
Technologies: Visual Studio, Advance Driver Assistance System(ADAS), Surround View System(SVS), Blender, TensorFlow.
Concepts:Compiler, Artificial Intelligence, Machine Learning, Deep Learning.

Coding Platforms

Leetcode Profile: leetcode.com/a1955a5
GFG Profile: geekforgeeks.org/akshaykumar8288