Dipanshu

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EDUCATION

University Institute Of Engineering & Technology, Panjab University 2019-2023
B.E. in Electronics and Communication Engineering CGPA: **8.04**

SKILLS

- **Programming Languages:** Python,C, SQL, Object Oriented Programming
- **Libraries:** Pandas, Numpy, Keras, Tensorflow, Matplotlib, Scikit-Learn
- **Tools:** GIT,Linux,ROS, Bash, DBMS, Autocad,Proteus,Keil,Raspberry pi,Jetson nano
- **Soft Skills:** Leadership, Effective communication, analytical thinking, ability to teach & mentor

EXPERIENCE

CSIR-Central Scientific Instruments Organisation (CSIO) | Research Intern 2021

- Analyzed Inertia and dynamics of grasped objects for choosing optimal grasps to enable torque-efficient post-grasp manipulations

PROJECTS

Alzheimer's Detection App | *C# , Python , MySQL , Unity 3D*

- Led the development of an innovative Alzheimer's detection app that aims to identify individuals with early stage symptoms of the disease, enabling earlier intervention and improved quality of life.
- Achieved a 95% improvement in detection efficiency through the use of advanced machine learning algorithms and data analytics techniques.
- Designed and implemented the SQL database and manage apps data including patients information and test results.Utilised SQL queries to extract,analyse and visualise data,improving apps's performance and accuracy.
- Collaborated with healthcare professionals and data scientists to ensure the app's design and functionality met the highest standards of usability and reliability.

Artificial Intelligence based automatic grasp classification using vision sensor |

- Utilized CNN-based architectures for grasp classification, which demonstrated excellent results and could be applied to classify grasps using still images of objects.
- Developed architectures with a relatively low number of parameters, making it possible to implement the model on a microcontroller with limited processing power. Deployed the model on Jetson Nano, enabling real-time classification of grasps with low latency and high accuracy, even in resource-constrained environments.

AWARDS

SIH Campus Hackathon (Software Edition) Winner | *Ministry of HRD* 2020
SIH Campus Hackathon (Software Edition) Second Position | *Ministry of HRD* 2022

MOOCs

- Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning |Coursera
- Crash Course on Python |Coursera
- Programming for the Internet of Things Project |Coursera

CO-CURRICULAR ACTIVITIES

Tech Head of Jugaad Robotics Club **2021 –2022**

- Led the technical team of 350+ student members, focused on the club's technical strategy.
- Taught 400+ students on various technical aspects of robotics and different technologies, including IOT,ROS, AI, ML, and Deep Learni.
- Designed and delivered engaging lesson plans and projects that helped students develop problem-solving and teamwork skills.
- Provided individualized support and feedback to students to help them achieve their learning goals.

International-level taekwondo athlete

- Qualified for the trials of the south Asian game's trial
- My record of 13 consecutive national medals in taekwondo is another source of pride for me, and it reflects the consistency and dedication that I've brought to my training.