NIYANTA MEHRA

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EDUCATION

University of Michigan **Ann Arbor, MI**
Master of Science in Robotics *August 2021-July 2023*
SGPA: 4.0/4.0
Coursework: Programming for Robotics, Self-Driving Cars: Perception and Control

Delhi Technological University **New Delhi, India**
Bachelor of Technology in Mechanical Engineering *August 2017-July 2021*
GPA: 9.01/10

WORK EXPERIENCE

Internship at Machine Learning Research Lab DTU **New Delhi, India**
Research Intern *June'20 – July'20*

- Researched in Computer Vision track of the lab.
- Implemented and reviewed object detection algorithms, such as VoxelNet, YOLO; with focus on those handling LiDAR data.

Honda Cars India Limited **Uttar Pradesh, India**
Manufacturing Quality Intern *June'19 – July'19*
Project was aimed to establish a comparative study of fit-finish errors in vehicle at different checkpoints.

- Investigated and analysed aerodynamic and visual errors to ensure vehicle exiting quality department is passing on all fit finish related checks.

Ernst & Young **Haryana, India**
Machine Learning Intern *Dec'18-Jan'19*

- Worked in Advisory division and undertook project on Employee Churn Analysis.
- Developed Machine Learning pipeline using Random Forest algorithm to find employee attrition trends. Achieved a 92.5% accuracy on the model.
- Analyzed results obtained from the model and presented to HR department to aid in improving employee work experience.

Voith Digital Solutions India Private Limited **Uttar Pradesh, India**
Digital Solutions Intern *May'18-July'18*

- Programmed a server room access system using facial recognition
- Developed program in C++, using HOG descriptor in OpenCV to implement facial detection and recognition tasks.
- Successfully completed project, with model accuracy of 91% and the same was later installed at server room entrance.

PROJECT EXPERIENCE

Robotics and Mechatronics Course Project *Aug'20-Nov'20*

- Developed model of a physical aid with smart navigation capabilities and built in-gripper as part of Research project for elective course named Robotics and Automation.
- Used SolidWorks for designing the product and YOLOv3, object detection algorithm along with gTTS, to incorporate navigational and assistive features.
- Model developed can help differentially abled individuals to better navigate unknown environments.

COVID Detection using Deep Learning *June'20-Aug'20*

- Developed program in Python to detect COVID-19 using VGGNet model and chest X-Ray images of healthy individuals and COVID 19 patients. The model accuracy achieved was 89% on test data and 93.4% on training data.
- Model works to solve the problem of limited conventional COVID-19 testing methods by introducing alternative testing method.

LEADERSHIP EXPERIENCE

Literature and Film Council **New Delhi, India**
Treasurer *Aug'19-July'20*

- Managed a team of over 200 student volunteers, to curate events and festivals related to literature and films.
- Responsible for raising (through corporate sponsorship and college funding) and managing a budget of roughly $33,000.
- Planned and organized 40+ events with authors, film makers and various other well-known artists.

Society of Robotics, Delhi Technological University
Vice President Technical / Machine Learning SIG Head *Aug'20-July'21 / Aug'18-July'20*

- As Vice President Technical: Responsible for organizing and managing technical events and seminars throughout the academic year.
- As Machine Learning Similar Interest Group (SIG) Head: Tutored interested students in Machine Learning through lectures and projects.

SKILLS

Technical Skills: Computer Vision, Machine Learning, Computer Aided Design
Programming Languages: Python, C++, C, MATLAB
Tools and Technologies: SolidWorks, Microsoft Office