

# Nikhil Kumar Bhavani

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## EDUCATION

**Bachelors in Mechanical Engineering** (GPA - 6.5) 2018-22  
Mahindra Ecole Centrale  
*Courses* - Computer Science fundamentals, Data Structures, Aircraft Design, Design of Autonomous Driving Vehicle, Natural Language Processing.

## CERTIFICATIONS

Python Fundamentals Jan 20

## SKILLS

**Softwares/Tools:** C, C++, Python, Machine Learning, SQL, AutoCAD, Autodesk Inventor.

## PUBLICATIONS

**Study of Prototyping a Digital Twin of a Robotic Arm** - *Science, Technology and Development Journal, Volume X Issue V May'21*

- A study of creating and training a Robot Arm Digital Twin to simulate the virtual using physical model.
- Proposed a software that enables one-way communication between physical and virtual models.

## PROJECTS

**Digital Twin of a Robotic Arm** - MATLAB, Altair Inspire, CAD, Solid Works

- Created and trained a Robotic Digital Twin to stimulate the virtual model of a physical arm.
- Used Altair Inspire to define the Ground and rigid bodies, joints, and motion force such as contact force, motor, actuators.
- Implemented Altair Activate to send command signals to the Arduino board.

**Soft Exoskeleton for fingers and Wrist** - MATLAB, CAD, Solid Works

- Designed and Developed a robotic soft exoskeleton for fingers and wrist for stroke survivors to provide rehabilitation in a reproducible and repeatable manner.

## POSITIONS OF RESPONSIBILITY

- President of annual intra-college literary and cultural events
- Head of Logistics team for College Cultural Organization
- Coordinator of Annual College Reunion Celebrations