# NIHAL ADARSH RENUK

MECHANICAL ENGINEER
Bangalore, Karnataka 560056
tel:+917760626836 nihaladarshrenuk@gmail.com LinkedIn
Portfolio: GitHub

## CAREER OBJECTIVES

A passionate and motivated Mechanical Engineering student with a solid background in CAD software and core engineering principles. Eager to apply my technical expertise and academic knowledge to meaningful projects, I aim to contribute to innovative solutions while further developing my skills and advancing as a professional in the mechanical engineering field.

## EDUCATION

- **Don Bosco Institute of Technology** **-2025(CGPA:7.85)**
  I'm currently pursuing a "*Bachelor of Engineering in Mechanical Engineering*" under the **"***Visvesvaraya Technological University (VTU)***"**. Here I am developing a strong technical foundation and deepening my knowledge in mechanical engineering.
  **Relevant Coursework:**
  **Mechanical courses-** Thermodynamics, Fluid Mechanics, Manufacturing Processes, Strength of Materials, CAD and FEA, Machine Design, CNC Programming, MATLAB.
  **Management courses-** Production and Operation management, Total quality management, Product design and ergonomics, Supply chain management and Introduction to SAP.
- **Sharadha PU College, Dharwad** **-2021(61%)**
  Completed my *"II PUC in PCMB"* under the **"***Karnataka Pre-University Board***"**. This has given me a strong foundation in both scientific and technical subjects, which has been instrumental in my transition to pursuing engineering.
- **Vijayashree Public School** **-2019(64.6%)**
  Completed my "*SSLC*" under the "*Indian Certificate of Secondary Education (ICSE)*", which laid the foundation for my academic journey and equipped me with a well-rounded understanding of various subjects.

## SKILLS

- AutoCAD
- MATLAB
- NX CAD
- SolidWorks
- Sold edge
- Catia v5
- MS Excel
- MS Word

## PERSONAL STRENGTH

- Time management.
- Perfection in work.
- Teamwork and communication.
- Willingness to continuously learn.

## CERTIFICATIONS

***AutoCAD*** **90%**

- Mastered 2D and 3D drafting techniques, creating precise technical drawings and engineering layouts for mechanical components and systems.

***SOLIDWORKS*** **86%**

- Developed expertise in 3D modeling, part and assembly design, and simulation, with a focus on product development.

***NX CAD*** **80%**

- Gained proficiency in Siemens NX for advanced mechanical design and engineering analysis, including assembly modeling.

***CATIA V5*** **92%**

- Acquired skills in parametric design, complex surface modeling, and assembly creation for product development and engineering applications.

## PROJECT

### Major project:

- **Development, Automation and Implementation of an Agro-Seeding Drone**
  **Duration:** Sep 2024-Dec 2024
  **Tools:** NX CAD, SOLIDWORKS
  **Technologies Used:** ESP32 microcontroller, BLDC motors, GPS module, Flight Controller-APM 2.8, Arduino-based programming
  **Objective:** Development and Implementation of a compact, efficient drone for precise seed dropping in small-scale agriculture and difficult-to-access terrains such as hilly regions and reforestation areas.
  **Results:** Successfully tested for accuracy, stability, and uniform seed distribution over varied landscapes, significantly reducing manual effort and time.

### Minor project:

- **Laser Security System**
  **Duration:** June 2024 - July 2024
  **Technologies Used:** Light Dependent Resistor (LDR), Laser Module, Buzzer, Op-Amp Comparator, Transistor-based triggering
  **Objective:** Development and implementation of a low-cost, efficient laser security system using LDR and a laser module to detect intrusions and trigger an alarm.
  **Results:** Successfully tested for intrusion detection, alarm response, and sensitivity to interruptions in the laser beam, making it suitable for home security, safes, and restricted areas.

### Design project:

- ***Multi-axis robotic arm assembly***
  **Tool:** CATIA V5
  Designed a multi-axis robotic arm assembly using CATIA V5, integrating key mechanical components such as the base, links, joints, actuators, and end effector.
- ***V6 engine assembly***
  **Tool:** NX CAD
  Designed a detailed V6 engine assembly, including essential components such as the cylinder block, pistons, crankshaft, camshaft, valves.

## LANGUAGES KNOWN

| | |
|---|---|
| Kannada | **5.0**-★ ★ ★ ★ ★ |
| English | **4.0**-★ ★ ★ ★ ☆ |
| Hindi | **4.0**-★ ★ ★ ★ ☆ |
| Telugu | **3.0**-★ ★ ★ ☆ ☆ |