

# Harishkumar Laxmikant Gajakosh



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Portfolio: [bit.ly/3y8qhUL](https://bit.ly/3y8qhUL)

## EDUCATION

April 2023

**Indian Institute of Technology  
Dharwad, Karnataka**

*Bachelor of Technology, Mechanical  
Engineering: CGPA: 8.24/10 (6<sup>th</sup> sem)*

## RELEVANT SKILLS

Fusion 360, Solidworks, FreeCAD

Ansys Workbench

AutoCAD

C, C++, MATLAB

Microsoft office, G suite

3D Printing

Lathe, Shaper, Radial Drill, Milling

English, Hindi, Marathi, German(A1)

## RELEVANT COURSES

### • Academic:

o Computer Integrated

Manufacturing (AP)

o Manufacturing Processes (AA)

o Machine Drawing and 3D

Modelling (AP)

o Engineering Graphics (AA)

### • Self Learned

o Fusion 360 Integrated CAD and

CAM (Coursera)

o Digital Manufacturing (Coursera)

o Generative design and weight

reduction (Coursera)

o Simulation and Analysis

(Coursera)

• 3D printing workshop

(Deshpande Startups)

## EXPERIENCE

June 2021–July 2021

**Product Design Intern**

*Mechathon Pvt. Ltd.*

- Designed and Optimized Multi-Plunger Positive-Displacement Pumps.
- Used Solidworks to draft and model the components. The project required the assembly of over 700 components.
- Learned GDNT and collaborated with the team on the design, development of pump optimization.

April 2021–May 2021

**Design Engineer Trainee**

*Riyft*

During the span of the internship, I worked with a start-up and been exposed to

- Product development Process in the Automotive Industry
- Overview of Product Lifecycle Management (PLM)
- Automotive Subsystems
- Automotive Interior and Exterior Plastic Trims design process
- Automotive Body in White Design Process
- Learned Performed Design failure mode and effect analysis (DFMEA)

## KEY PROJECTS

**Tool Path and G-Code Generator**

*March 2022-April 2022*

Used MATLAB to develop a software program, for generating tool path to machine a free-form (Bezier) surface which is defined using a 4x4 matrix with desired surface finish. And then generates the CNC Part program file as text file output.

**Myoelectric Prosthetic Arm**

*October 2021-November 2021*

Led a team of three, designed and manufactured a prototype of a low-cost Myoelectric Prosthetic Arm. Used FDM 3D printers like Creality Ender 3, Flashforge Adventurer 3 and Stratasys F120 to print the design along with slicers like Slic3r, Cura, GrabCAD and IdeaMaker.

**Crane Boom Model**

*March 2021-April 2021*

Designed a crane boom model using ice cream sticks. Performed analysis using Ansys Mechanical workbench and Fusion 360's simulation Workbench. Effectively reduced the displacement in the z-direction by 24% with respect to the first iteration.

**Additive Manufacturing**

*March 2021-April 2021*

Used Abaqus to perform FEA of Additive Manufacturing based on FDM.

**Novel Seatbelt Design**

*Jan 2021-Present*

Collaborating with a team under the direct supervision of the director of IIT Dharwad to design a more convenient and safer seatbelt than the current design.

**GenStep Stool**

*July 2020*

Was tasked to completely set up, run, and post process a step stool under generative study, such that it would easily carry an individual up to 200 lbs.

## POSITION OF RESPONSIBILITIES

- Designō Event Coordinator at Parsec 2022
- Steering Head of Ingene Motor sport (FSAE club)
- Public Relations Coordinator at Career Development Cell, IIT Dharwad

## AWARDS AND CERTIFICATIONS

- Certified Solidworks Professional
- Certified Solidworks Associate – Additive Manufacturing
- 3D experience - Collaborative Industry Innovator