# SIRI VENKATA NAGA GOPI DOKKU

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### PROFESSIONAL SUMMARY

- Mechanical Engineering graduate with expertise in CAD and CAE tools including CATIA, AutoCAD, and ANSYS.
- Experienced in leading engineering projects and performing complex analyses.
- Aiming to maximize the skills in mechanical design and structural analysis to contribute to innovative projects and solutions in a forward-thinking engineering firm.

#### **EDUCATION**

### LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING

Mylavaram, Andhra Pradesh

Bachelor of Technology in Mechanical Engineering

Dec 2020 - June 2024

Scholarship: AP Government (2020 – 2024); Cumulative GPA: 7.91/10.0;

Relevant Coursework: Solid Mechanics, Mechanical Design, Computer-Aided Design (CAD), Finite Element Analysis (FEA), and Manufacturing Processes.

### **SKILLS**

- TECHNICAL SKILLS:
  - → **CAD Tools:** CATIA V5, AutoCAD.
  - → Finite Element Analysis: ANSYS.
- **Languages:** English, Telugu.
- INDUSTRY SKILLS:
- → Plastic Product Design
- $\rightarrow$  GD & T
- → Design for Manufacturability (DFM)
- → Reverse Engineering
- $\rightarrow$  Injection Moulding
- → Advanced Surface Modeling: A to B

# **PROJECTS**

#### **CAR DOOR SUBSTRATE**

Jan 2025

- Developed **B-side features** (ribs, bosses, snaps and locators) using **CATIA V5**, ensuring adherence to **Plastic product design guidelines** and **GD&T standards**.
- Performed **draft analysis** and optimized **wall thickness** (2.5 mm) to eliminate sink marks and ensure proper ejection during molding.
- Conducted Clash Analysis for the assembly of: Map pocket, arm-rest, door trim, and bezel cover, and modified parts accordingly.
- Conducted **mold flow simulations** to validate flow lines and prevent defects like warpage and weld lines, achieving **first-time approval** in design reviews. (just shown not done actually)
- Coordinated with tooling engineers to implement **shut-offs** and **parting line adjustments**, enhancing manufacturability and reducing tool rework.

# EXPLICIT CRASH ANALYSIS OF A CAR BODY USING ANSYS

Dec 2023 – April 2024

- Directed a team of three in conducting ANSYS crash test analysis on lightweight materials (**Carbon fibers**, **Ti-6Al-4V**, **Al 7075- T6**) for car bodies, designing a conceptual car body in CATIA, and identifying optimal materials for improved safety and structural integrity.
- Awarded the Best Project of the Year 2024 by the Lakireddy Bali Reddy College of Engineering.

### **EXPERIENCE**

# PIONEER DESIGN | DDU - GKY | SEEDAP

Skill College, ANU, Guntur, Andhra Pradesh

Sep 2024 – Present

Automotive Plastic Product Design Engineer Trainee

- Specializing in Body-in-White (BIW), Plastic Product Design, remastering, A to B surface design, and applying Geometric Dimensioning and Tolerancing (GD&T) principles using CAD tool CATIA V5.
- Responsible for design documentation and contributing to automotive product development.

### CENTRAL INSTITUTE OF TOOL DESIGN

Vijayawada, Andhra Pradesh

Student Intern

Dec 2023 - Mar 2024

- Gained practical experience with AutoCAD, and ANSYS in a professional setting.
- Accomplished Student intern with over a 4 month experience in Design & Analysis software tools.

### INTERNSHIPS AND CERTIFICATIONS

#### • INTERNSHIPS:

- → Robotics (Skill Dzire). Jul 2022 Aug 2022
- → CATIA (Aylin Technologies). Jul Sep 2023
- → CITD. Dec 2023 Mar 2024

## • CERTIFICATIONS:

→ DraftSight Associate

Aug 2024

→ Electric & Solar Vehicle Design and Development, iPrime Skills Aug – Sep 2022