Joy Abhishek C

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EDUCATION

JSS ACADEMY OF TECHNICAL EDUCATION
BE Mechanical Engineering
Bengaluru, Karnataka
Current CGPA – 8.1

EAST WEST POLYTECHNIC
Mechanical 2019 - 2022
PERCENTAGE: 71.92%

SATHWIK VIDYA MANDIR
SSLC - 2019
PERCENTAGE: 76.96%

SKILLS

CAD

- **CATIA**: Assisted in designing **BIW** jigs and fixtures; prepared 2D drafting with basic knowledge of **GD&T**.
- **SOLIDWORKS**: Created basic 3D models and drafted engineering drawings for academic projects.
- **AUTOCAD**: Created basic 2D drawings and layouts for engineering designs.
- **Fusion 360**: Designed simple 3D models.
- **Python, MS Office (Word, Excel)**

SOFT SKILLS

- Analytical thinking
- Problem solving

CERTIFICATIONS

- SOLIDWORKS
- AUTOCAD
- IN PLANT TRAINING

LANGUAGES

English, Kannada, Tamil, Hindi (Basic)

OBJECTIVE

Driven **mechanical engineering** student, pursuing B.Tech, aiming to secure an entry-level **Design** Engineer role. Proficient in utilizing **SolidWorks, CATIA**, and AutoCAD, applying **GD&T** principles, and executing basic modeling and simulation tasks. Actively expanding expertise in **FEA** and **CFD** to deliver innovative and efficient design solutions.

PROJECTS

AERODYNAMIC DESIGN OPTIMIZATION OF FIN | MAJOR PROJECT | ONGOING
Feb 2025 - Oct 2025

- Designing and optimizing Droop Nose Leading Edge (DNLE) and Morphing Trailing Edge (MTE) configurations using Bezier-PARSEC parameterization techniques.
- Implementing a hybrid optimization framework combining Particle Swarm Optimization (PSO) and Pattern Search algorithms, with aerodynamic evaluations conducted via **XFOIL** and validated through **CFD** simulations (Transition SST model).
- Achieved preliminary performance gains with a **10.25%** increase in CL3/2 /CD targeting enhanced endurance and aerodynamic efficiency.

CHASSIS DESIGN & OPTIMIZATION FOR FORMULA SAE CAR | Automotive Design PROjecT | ONGOING
Feb 2025 - --- 202-

- Engineered and optimized the chassis design for a Formula SAE race car using **SolidWorks**, ensuring structural integrity and performance.
- Collaborated with cross-disciplinary teams (aerodynamics, suspension) to integrate chassis with vehicle systems for maximum efficiency
- Contributed to a lightweight, durable chassis that enhanced car performance, safety, and handling on the track.

EXPERIENCE

CHENIK TECH SOLUTIONS | FULL TIME
Feb 2023 - Oct 2023

- **Engineered** and **developed** Body-in-White (**BIW**) jigs and fixtures to optimize manufacturing efficiency.
- Leveraged **CATIA** software to **design** precise 3D models and generate detailed technical drawings for fixtures and jigs

INTERESTS

READING

ANIME