Dande Dhanesh Kumar

Bachelor of Technology in Mechanical Engineering

Indian Institute of Technology Tirupati, India

Portfolio   Github   Linkedin

Education Details

Program	Institute	Year	%/CGPA
B.Tech - Mechanical Engineering	IIT Tirupati	2024	8.37/10
Higher Secondary Education	Abhyas Junior College, Proddatur	2020	98.1%
The Board of Secondary Education	Sri SreeVani Vidyalayam, Proddatur	2018	10/10

Areas of Interest

- Full stack Web Development, Programming, Problem Solving, Fluid Mechanics, Heat Transfer.

Technical Proficiency

Programming Languages	:	C++, JavaScript, TypeScript, Java(familiar), Python(familiar)
Frameworks & Libraries	:	React.js, Node.js, Express.js, Mongoose, MongoDB, Tailwind CSS
Softwares & Tools	:	Android studio, Visual Studio, MS Office, Ansys, Creo, Git

Experience

- **Genetic Algorithm Intern, BluJ Aerospace**   **[May 2023 - July 2023]**
  [Guide : Utham Kumar Dharmapuri]

  - Propulsion system analysis of an e-VTOL aircraft using Genetic Algorithm.
    Developed a **genetic algorithm** for a 6 propeller e-VTOL aicraft using **C++**, which estimates the thrust forces required from the motors to balance the aircraft in hovering conditions. This work revealed that the **motors chosen earlier are inadequate to generate sufficient thrust** in the presence of a propeller failure and a shift in CG w.r.t center of lift.

Projects

- **StudyNotion**   [website & source code]   **[April 2023 - June 2023]**
  - Built a full stack **EdTech** platform using **Mern stack** that includes student and instructor accounts, storing in **MongoDB Altas**. Used **React**, **Tailwind CSS** for the front-end development, **node.js** with **express.js** are used to create backend with **mongoose** connecting to database. Razorpay is used for **payment integration** to buy courses and **cloudinary** is used to store images and videos. Made **30+ Rest API**s to connect backend functionality with frontend.

- **BluJ Aero**   [website]   **[June 2023]**
  - Designed and built a static website using **React** and **Tailwind CSS** for an aerospace **startup**, BluJ located in Hyderabad and, hosted the website in Godaddy.

Relevant Courses

- Data Structures and Algorithms in C++   - MERN Stack

Achievements

- Cleared 2 rounds of Innovate India Coding Championship conducted by AICTE and came into waiting list for final round.

- Currently ranked 5th in GFG at IIT Tirupati

- 3 star coder at Codechef

Positions of Responsibility

Multi media team

- Worked in mutli media team as a core member for tirtsava, a techno cultural fest.