RAKSHIT JAIN

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New Delhi, India

PROFILE

I am an enthusiastic engineer who gets the job done either by being inside or outside the box.
Experienced in the Mechanical Design domain of the fields - Intelligent Robotics, Electric Mobility and Product Design & Development

EDUCATION

2017 - 2021
B.Tech. - Automobile Engineering
7.86 CGPA
Manipal Institute of Technology, MAHE
Manipal, Karnataka

2016 - 2017
12th Grade | 76%
St. Sophia's Sr. Sec. School
Pashchim Vihar, New Delhi

2014 - 2015
10th Grade | 7.8 CGPA
Montfort School
Ashok Vihar, New Delhi

SOFTWARES

- Solidworks
- Catia
- Fusion 360
- Ansys
- Adams
- Matlab
- Autocad
- Photoshop
- Excel
- C++

WORK EXPERIENCE

Arka Aerospace, Robotics Research Centre, IIIT Hyderabad

Arka Aerospace, a research-backed technology spin-off from Robotics Research Center, IIITH, developing drones for defence and logistics

Jul 2022 - Nov 2022 | Mechanical Design Engineering Lead

- Led the research, design & manufacturing of the world's 1st , patented, shape-reconfigurable drone (Elasticopter) & a hand-held anti-drone

Aug 2021 - Nov 2021 | Mechanical Engineering Research Intern

- Improving the drone shape reconfigurable chassis design
- Designing the landing suspension gear & and swappable battery mechanism
- Performing static structural and multi-body dynamic simulation analysis
- Prototyping (Sheet Metal, CNC, FDM & MJF 3D Printing) for field testing

Cereble

Sports automation tech startup co-founded by Indian Shooting Olympian Anjali Bhagwat

Jan 2022 - Jun 2022 | Mechanical Design Engineering Lead

- Led the design & manufacturing of multiple projects - pneumatic laser device, laser rifle & pistol (Fundook), laser-based & pellet-based electronic target

Feb 2021 - Aug 2021 | Product Design Engineering Intern

- Designed, prototyped and tested a pneumatic laser targeting device for air pistol/ rifle
- DFMA (Plastic Injection Moulding)
- Drafting CAD drawings

Daitya Automotive

A sports EV Startup

May 2020 - Sept 2020 | Automotive Design & Engineering Intern

- Research and design of skateboard chassis and crumple zone concept
- Static and dynamic structural simulations and analysis for various load and impact conditions on chassis and crumple structure
- Coordination with an international team working on suspension, battery pack, drive train to efficiently integrate them with the chassis

Boozimba

Develops automated cocktail vending machine/ robotic bartenders.

March 2020 | Product Design Intern

- Conceptualised their next-generation cocktail vending machine model within the defined budget
- Updated the mechanism to prepare & deploy any 3 cocktails from the menu at once while maintaining the same footprint of the previous machine, increasing the productivity thrice
- Designed subsequent parts for the new mechanism that packaged 30% more efficiently with other electronics and sensors for a compact and robust design.

PROJECTS

Project MANAS

The official A.I. Robotics team of Manipal Institute of Technology

Oct 2018 - Feb 2020 | Mechanical Design Head

- Led a team of 5 students for all the facets of development (conceptualise, design, prototype, test and manufacture) of an **Autonomous Delivery Vehicle** for **IGVC 2019**
- Developed frames to mount sensors and computers for accurate readings and reduce vibrations, on **Driverless e20** achieving level -2 autonomy for **Mahindra Spark The Rise Challenge**
- Collaborative work with Artificial Intelligence and Electrical & Electronics team to seamlessly integrate the subsystems
- Prepared detailed technical reports and budgets of our projects to present and pitch it to the college, competition jury and our sponsors
- Getting quotes from vendors, negotiating prices for sourcing parts

Accessible Ventilator Concept

April 2020 | Individual Project

- Designed a cheaper, portable & a DIY alternative to address the medical condition - ARDS during the COVID-19 emergency

ACHIEVEMENTS

- **Grand Prize winner** of **IGVC 2019** held at Oakland University, USA. Also secured **2nd position** worldwide in its **Design Challenge**
- Shortlisted for round 1 at MAHE in **Anveshan National Student Research Convention 2020-21** for my Accessible Ventilator Concept