RITHVIK J VASIST

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SUMMARY

A student seeking opportunities in mechanical, aerospace, and automotive fields which can enhance my skills, challenge me and help my growth while simultaneously contributing to the organization.

EDUCATION

- **Bachelor of Engineering (B.E), Mechanical Engineering**
  Jyothy Institute of Technology (2018-2022)
  (CGPA- **7.5** till 7th semester)

INTERNSHIPS

DYNAPAC (FAYAT) - Design Intern (September 2021 – November 2021)

- Built a working prototype of a line follower using an **Arduino microcontroller** with color sensors to implement it on a paver.
- Designed and analyzed a **bolt system** for a screed considering different types of loads.
- Analysed a **hydraulic cylinder system** of a screed and optimized the same.
- Designed material handling system using **Autodesk Inventor.**
- Built a scaled model of a screed using Balsa wood.
- Worked on developing a new mechanism for compaction.

DECIBELS LAB - Student Intern (June 2021 – July 2021)

- Analysed quadruped system
- Analysed airflow over an airfoil using **Python** and its libraries such as **Matplotlib** and **Numpy**.

TRINNOVATIONS – Design Associate Intern (May 2022 – Ongoing)

- Conceptualization of various automation solutions.
- Design of Special purpose machines for organizations such as DENSO Kirloskar, Eureka Forbes and Stovekraft.

PROJECTS

- **SAE International Aero Design (Micro Class) –** Designed and fabricated a micro class aircraft using CAD software such as Solidworks, Fusion 360. Analyzed the design using Ansys Structural and Fluent. Used **Additive manufacturing** to produce joints for the aircraft and mold for a wet layup and vacuum bagging.
- **X-Y plotter machine –** Fabricated an X-Y plotter machine that could plot sketches using aluminum struts. Custom ABS plastic wheels were manufactured using a lathe machine. Several studies were conducted on the selection of bearings.
- **Line follower –** Designed and built a line follower using Arduino microcontroller and Infrared sensors.
- **Bluetooth RC car –** Designed and built a Bluetooth RC car using Arduino microcontroller using a Bluetooth module and non-contact sensors.
- **Personal website –** Built a personal website using HTML and CSS.
- **Vertical Axis Wind Turbine(VAWT) –** Designed a small scale (Power< 500 Watts)Vertical Axis Wind Turbine for domestic usage.

SKILLS

- **SOLIDWORKS, Fusion 360, Inventor**
- **Ansys (Structural, CFD)**
- **Python and its libraries (matplotlib, scikit, NumPy, and pandas) -** Beginner
- **Arduino Programming**
- **Additive manufacturing:** Have worked on 3D printing using printers such as Stratasys and Ender 3D.
- **HTML and CSS**

TRAINING AND CERTIFICATIONS

- Web Development (Udemy) – Ongoing
- Computer vision with Python (Udemy) - Ongoing
- Solidworks CSWP (Udemy)
- Python (Internshala)
- Aerodynamics of an aircraft (NPTEL)