

M. Bazal Junaid

Mechanical Engineer

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MECHANICAL DESIGN ENGINEER

Detail-oriented and innovative Mechanical Design Engineer with 4+ years of experience specializing in sustainable and cutting-edge designs. Skilled in utilizing advanced CAD software (SolidWorks, Ansys) for 3D modeling and simulations, including FEA and CFD. Passionate about creating eco-friendly solutions and leveraging engineering principles to drive sustainability in product development.

KEY COMPETENCIES

- CAD Proficiency
- Simulation and Analysis (FEA & CFD)
- Attention to Details
- Ability to plan, prioritize and manage projects
- Strong Communication (verbal, written)
- Adaptability and continuous learning
- Interdisciplinary Skills and Cross-Functional Experience

PROFESSIONAL EXPERIENCE

CAD and Simulation Professional

2022 - Present

Freelancer (bazaljunaid.com)

As a CAD and Simulation professional, I work in creating detailed 3D models, assemblies, and technical engineering drawings, while applying Geometric Dimensioning and Tolerancing (GD&T) principles to ensure precision and manufacturability. I leverage SolidWorks Simulation tools to conduct stress, thermal, fluid dynamics, and motion analyses. Work closely with startups and cross-functional teams to optimize designs, apply DFMA (Design for Manufacturing and Assembly), and ensure seamless integration into manufacturing processes. With a focus on improving product performance and reliability, I have led successful design optimization initiatives and provided expert guidance on best practices in CAD modeling and simulation.

Mechanical Design Engineer

2020 - Present

Freelancer (upwork.com)

I provide high-quality design solutions for clients across various industries, specializing in 3D modeling, product development, and CAD design using SolidWorks and other industry-standard software. I collaborate with clients to understand their project requirements and deliver customized designs that meet technical specifications, cost constraints, and production requirements. My expertise includes creating detailed mechanical drawings, assemblies, and prototypes, as well as performing simulations and analyses to optimize designs for performance, durability, and manufacturability.

3d product animator

2022 - 2023

Heisha Tech (Hong Kong)

I collaborated with Heisha Tech, specializing in drone docks, to create 3D renders and animations for product explanation and marketing. This included exploded views, product functionality, and design visualization animations. The software used was SolidWorks Visualize and Blender.

Assistant Manager Maintenance

2019 - 2020

Sira Textiles (Pakistan)

I oversaw the maintenance and repair of machinery to ensure smooth production. I coordinated with technicians to troubleshoot issues, perform preventive maintenance, and minimize downtime. I also assisted in managing maintenance schedules and ensuring compliance with safety and quality standards.

Content Creation & Management (Part time)

2023 - Present

Team mb (Berlin)

I assist the marketing and social media department with content creation and management, including scheduling, user-generated content, and posting. This experience has greatly enhanced my understanding of the international industry environment and contributed to my progress in learning the German language.

EDUCATION AND CERTIFICATES

BSc. Mechanical Engineering

2015 - 2019

University of Engineering and Technology, Lahore

During my engineering degree, I focused on design and manufacturing, completing several semester projects and my final year project in this area. My semester projects included designing Theo Jansen mechanisms, a pneumatic door mechanism, and performing cooling load calculations. For my final year project, I worked on designing an exhaust waste heat recovery system.

- **SolidWorks CAD Expert**
Digital CADD (2020)
- **CAD and Digital Manufacturing**
Coursera (2021)
- **3D printing & additive manufacturing**
Coursera (2023)

APPLICATIONS

- SolidWorks (CAD)
- Creo Parametric (CAD)
- SolidWorks Simulation (FEA, CFD)
- Ansys (Simulation)
- Blender (3D rendering/animation)
- Adobe creative cloud
- Microsoft suite
- Team Center (PDM, PLM)

EXTRACURRICULAR ACTIVITIES

- **Joined ASME** to expand my network and enhance technical expertise.
- **Own a small personal workshop** for hands-on projects and experimentation.
- **Actively learning new languages** and exploring different cultures.

ACHIEVEMENTS

Top rated Seller

Upwork.com (Freelancer)

CAD and simulation

- 340+ Projects completed
- worked with 50+ professionals

LANGUAGES

English

Business Fluent (C1)

Urdu

Native (C2)

German

Intermediate (B1)

Arabic

Intermediate (B1)