FAHAD BUTT | MECHANICAL ENGINEER

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PROFILE

Mechanical Engineer finishing an MSc in Advanced Mechanical Engineering at Brunel University London. Spent three years in agricultural machinery manufacturing. Launched a new tilling machine and introduced assembly lines for the plant. Designs, builds and tests. Added a servo-actuated pipette dispenser to a Prusa printer without losing normal printing. Works in CAD, FEA and additive manufacturing. Has machined parts on lathes and mills. Seeking a mechanical engineering role in design, manufacturing or R&D.

MY TECHNICAL EXPERTISE

Core Skills: Additive Manufacturing | CAD Design & Modelling | FEA | CNC, Lathe and Laser Cutting Operations
Software: SolidWorks | Creo Parametric | AutoCAD | Autodesk Fusion 360 | Inventor | ANSYS | ABAQUS | MS Office

WORK EXPERIENCE

Technician | Brunel University of London, London Oct 2026 - Present
Workshop Inductions | Model Making & Prototyping | Machining & Laser Cutting | Equipment Maintenance | Inventory
- Support students and staff on model making, advising on materials, processes and assembly methods
- Deliver equipment inductions and supervise safe use of lathes, mills, laser cutters and CNC.
- Maintain room and project risk assessments, applying COSHH rules across all workshop activities.
- Carry out equipment maintenance and fault finding, and manage stock and workshop consumables.

Industrial Manufacturing Engineer | Al-Qasim Agro, Nowshera Virkan Sep 2022 – Sep 2025
Lean Manufacturing | Kaizen | 5S | Kanban | Inventory Control | Line Balancing | Process Flow Mapping
- Led the launch of the Multispeed tilling machine and delivered it to market on time in 2024.
- Introduced assembly lines for tilling machines, seeders and land levellers, raising efficiency by 500%.
- Managed the supply chain and kept production running without interruption.
- Improved inventory management, cutting downtime by 50% and lifting efficiency by 20%.

Maintenance Engineer Intern | CCL Pharmaceuticals, Lahore Jun 2022 – Aug 2022
Preventive Maintenance | Condition & Time-Based Maintenance | CAPEX/OPEX Budgeting | COSHH | Risk Assessment
- Developed condition-based and time-based maintenance checklists for industrial equipment.
- Built and deployed preventive maintenance schedules, cutting unexpected breakdowns by 35%.
- Tracked inventory and CAPEX/OPEX budgets, cutting order fulfilment delays by 25%.
- Tracked equipment availability against maintenance schedules to plan maintenance work.

Manufacturing Engineer Intern | Usman Engineering, Gujranwala Jul 2021 – Sep 2021
Lathe & Milling Operations | AutoCAD Drafting | Weld Inspection | Dimensional Inspection | Surface Finishing
- Led an interdisciplinary team to design, build and assemble two robots, a line follower and a tumble walker.
- Produced AutoCAD engineering drawings for fluid flow control valves.
- Machined parts on lathe, milling and slotting machines. Work included turning, knurling, facing and threading.
- Quality Assurance Process, grounding and finishing part surfaces, and carried out weld inspections.

Mechanical Product Design Engineer | Freelance 350+ Projects with 4.99/5 ⭐ Feedback
CAD Design & Modelling | Product Design | Visualizations | Additive Manufacturing | FEA Simulations
- Design parts for 3D printing, matching each to a suitable process and material for reliable results.
- Advised clients on materials and manufacturing feasibility, helping them improve their products.
- Engineered R&D solutions and performed FEA & CFD, enabling clients to cut product development time and costs.
- Produced product animations and renders that showed design intent clearly in client pitches and advertisements.

EDUCATION

MSc Advanced Mechanical Engineering | Brunel University of London Sept – 2026
Key Modules: CAD / CAE | Advanced Material & Manufacturing | Additive Manufacturing | Robotics & Automation
- Dissertation: built a servo-actuated pipette dispenser for a PRUSA FDM printer, keeping normal printing intact
- Optimised a 3D-printed drone arm using topology optimisation, reaching 750 N load at 1.2 mm wall thickness.

BSc Mechanical Engineering | UMT, Lahore (Passed in Top 10% of my Cohort) July – 2024
Key Modules: Machine Design & CFD | FEA | Fabrication & Machining | Project Management | C++, Python & MATLAB
- Engineered a lever-operated multispeed gearbox using dog clutch mechanisms for Rotary Tilling Machine.
- Validated gearbox integrity through ANSYS Static Structural and Explicit Dynamics, ensuring safety under high-torque.

CNC Repair and Maintenance Diploma | PBTE, Gujranwala Sept – 2019
Key Skills: Fault Diagnostics | Preventive Maintenance | Machine Calibration | Component Replacement
- Diagnosed faults on CNC machines and replaced worn components.
- Calibrated machines and ran preventive maintenance to reduce downtime.

Professional Development
COSHH Training | First Aid Training | Odoo Manufacturing Training | Mckinsey Forward