MUHAMMAD AKIF JANJUA

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PROFILE SUMMARY

I am a motivated individual who is always ready to learn, adapt, and give my best in everything I pursue. As a passionate Mechanical Engineering student with a deep interest in automotives, robotics, and manufacturing, I am committed to delivering optimized, industry-ready solutions and am eager to apply my technical design skills to both professional projects and advanced academic research.

EDUCATION

BE Mechanical Engineering (CGPA: 3.08) Sep 2022 - May 2026
National University of Sciences and Technology (NUST), Islamabad

HSSC Pre-Engineering (93.45%) Sep 2020 - June 2022
Government College University (GCU), Lahore

PROFESSIONAL EXPERIENCE

DEL (Descon Engineering Limited) – *Intern* Aug 2025 – Sep 2025
- Reviewed multidisciplinary engineering drawings and QA/QC documents to support project execution understanding.
- Assisted in project scheduling in Primavera P6, SAP workflows, and prepared reports/data management in Excel.

NESCOM – *Intern* July 2025 – Aug 2025
- Worked on a NESCOM-sponsored FYP on AI-driven CNC milling parameter optimization for sustainable machining.
- Performed CREO CAM validation of optimized cutting parameters for machining time, surface roughness, and energy consumption.

PROJECTS

(FYP) AI Driven Multi Objective Tool Path Optimization for Sustainable CNC Milling July 2025 – May 2026
- Developed a hybrid CNC milling decision-support system using XGBoost, NSGA-II, and analytical machining models to recommend optimized cutting parameters for prismatic parts.
- Optimized machining time, surface roughness, and energy consumption simultaneously, with predicted machining times validated against CREO CAM simulations.

Electric Human Powered Vehicle (EHPV) Jan 2025 – June 2025
- Designed and developed an Electric Human Powered Vehicle by integrating mechanical design with an electric-assist system to enhance mobility and efficiency.
- Combined optimized drivetrain layout, structural geometry, and battery–motor synchronization to deliver smooth power support and improved ride control.

Hand-Gesture Controlled Car Sep 2024 – Jan 2025
- Developed a gesture-controlled car using an ESP32 and MPU6050 that enables seamless multi-directional movement through real-time hand-motion inputs.
- Implemented motion-detection logic in C++ that allows the vehicle to halt automatically when hand gestures stop, ensuring responsive and safe operation.

SKILLS

- CAD/CAM
- SolidWorks
- CREO
- Manufacturing Processes
- ANSYS
- Python
- Machine Learning
- MATLAB
- Robotics
- Control Systems
- Automation Systems
- Data Analysis
- Technical Report Writing
- Problem Solving
- Teamwork
- Collaboration
- SAP
- Primavera P6
- Microsoft Excel