

Arsalan Ali

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EDUCATION

Texas A&M University

College Station, TX

Bachelor of Science in Mechanical Engineering, Minor in Computer Science

May 2028

PROFESSIONAL EXPERIENCE

Quality Engineering Intern (Incoming)

May 2026 – Aug. 2026

Daikin Comfort

Waller, TX

- Selected to support **manufacturing quality**, **NPI**, and **launch readiness** for HVAC assemblies and **PCBAs**, including **design change validation**, **supplier validation**, **reliability**, and **warranty-related analysis**.
- Will support cross-functional **root cause analysis**, **verification and validation**, and **process/quality improvement** activities with manufacturing, procurement, test, reliability, and quality teams.

Quality Engineering Intern

May 2025 – Dec. 2025

Professionalized Products and Services, Inc. (PPSI)

Houston, TX

- Performed **PCBA DFM support** for **FAI**, **NPI**, first builds, and production by reviewing **Gerbers**, **centroid/XY placement data**, **BOMs**, and **schematics**; recommended manufacturability improvements including selective **through-hole vs. SMT** decisions, **stencil redesign** for edge-component risk, and solder/process corrections tied to **USB-C test failures**.
- Developed **5+ AOI XML programs** for the **Mirtec MV-3** and reorganized AOI inspection workflow to increase inspection throughput by **100 boards per day**; also troubleshooted and reprogrammed boards during **RMA** analysis and coordinated microscope-based defect findings with rework operators.
- Designed **three 3D-printed fixture revisions** in **SolidWorks** for the **Takaya APT-9600**, reducing electrical false failures by **30%** across three board families.
- Reduced **RMAs by 5%** by implementing a corrective taping method for sensor-related issues; created **work instructions** and **QA acceptance criteria** required before **FQA** approval.
- Improved manufacturing readiness through a **packaging cost study** that supported slip-in **ESD bubble bag** handling over more manual packaging methods, and built a **Python** script to verify **MRP BOMs** against **pick-and-place BOMs**.

Makerspace Instructor and Technician

Sep. 2024 – May 2025

IDEAStudio Makerspace

Houston, TX

- Trained **200+ students** on **3D printers**, **laser cutters**, **woodshop tools**, and **CNC equipment**, guiding users from CAD design to finished parts through safe, repeatable workflows.
- Maintained fabrication equipment through **calibration**, **troubleshooting**, and **preventive maintenance**, supporting safe operation for **80+ students weekly**.
- Designed **ESD covers for LCDs** to help speed up the **conformal coating** process and developed a **Python-based inventory tracking tool** to improve material visibility and reduce manual checks.

PROJECTS

Process Improvement Engineer | *Nexora Systems (Simulated DMAIC), Minitab*

May 2025 – Jun. 2025

- Led an individual **Six Sigma DMAIC** project that improved simulated on-time arrival from **10% to over 90%** and raised process capability from **0.2 Sigma to 2.7 Sigma** using a **300-sample** dataset in **Minitab**.
- Identified root causes through **Fishbone Diagrams**, **5 Whys**, and **Pareto Analysis**, then proposed process controls including **automated monitoring**, **SMS rostering**, and a **control plan**.

TECHNICAL SKILLS

DFM / Manufacturing: PCBA DFM Support, NPI, FAI, SMT Assembly, BOM Verification, Manufacturing Readiness, Work Instructions, Acceptance Criteria, AOI Programming, Flying Probe Support, Rework Support, Root Cause Analysis, 8D, CAPA, FMEA

PCBA / Tools: Gerbers, Centroid/XY Data, Schematics, Mirtec MV-3, Takaya APT-9600, KiCad, Altium Viewer, GerbView, XML

Data / Software: Python, Excel, Minitab, SolidWorks, Fusion 360, AutoCAD

Standards / Lab: IPC-A-610, J-STD-001, ESD Control, ISO 9001, AS9100, MRP, ERP, Microscope Inspection, Soldering, Multimeter Diagnostics