

Balamanoj Reddy Kommareddy

<https://in.linkedin.com/in/balamanoj> | bkommar1@kent.edu | +1 (330) 554-1998

Aviation & Data Analytics Professional | 4+ Years' Experience in PMA Parts Analysis, Reliability, and Aftermarket Solutions

Data Analytics professional with 4+ years of experience applying data-driven solutions in aviation, reliability engineering, and aftermarket support. Skilled in SQL, Oracle, Power BI, and ETL pipelines for building dashboards, automating workflows, and delivering predictive insights on PMA parts, fleet reliability, and inventory trends. Experienced in field event investigations (FEM), MTBF analysis, RCA, and warranty adjudication, with a proven track record of reducing costs and improving operational efficiency. Strong domain knowledge in FAA/EASA/DGCA compliance, technical documentation, and PMA part certification, supported by dual master's degrees in business Analytics and Aviation.

PROFESSIONAL EXPERIENCE

Data Analytics Engineer | *Aviation Component Solutions - Cleveland, Ohio*

Feb 2025

- Administered Oracle database and built ETL pipelines for efficient data flow and reporting.
- Designed and maintained dashboards and reports in Power BI to analyze component reliability, attrition rates, and usage trends.
- Conducted failure trend and predictive analytics on PMA Parts, repair cycles, and cost-saving opportunities.
- Supported reverse engineering decisions with attrition and usage rate analysis.
- Utilize Component Control Quantum ERP and Oracle SQL to manage parts inventory, maintain the MAXQPROD DB, and ensure accuracy across maintenance and procurement workflows.
- Create and compile comprehensive Technical Data Packages (TDPs) for airline and MRO customers requesting PMA parts, incorporating FAA regulations, Airworthiness Review Certificates (ARC), FAA Form 8130, 8110 tags, detailed part specifications, and maintenance requirements to support regulatory compliance and informed purchasing decisions.
- Collaborated with Engineering, Supply Chain, and Finance teams to optimize inventory planning and operational performance.
- Integrated APIs and platforms like Airtable to expand data sources and streamline data management.
- Delivered data-driven insights into leadership, enabling process improvements and strategic decisions.
- Developed Power Automate alerts and notifications to proactively track parts shortages, part events, and inventory levels.

Reliability Engineer | *CYIENT at Pratt & Whitney - Bangalore, India*

Nov 2021 - June 2023

- Led field event investigations (FEM) for IFSD, AOG, and turn-backs; performed Root Cause Analysis (RCA) and coordinated corrective actions with operators and FSRs.
- Analyzed system and component reliability data (MTBF, failure trends, performance metrics) to ensure compliance with safety, reliability, and maintainability standards.
- Managed warranty adjudication, cost analysis, and reliability reporting using CRM, CAF, NOR, and shop event data.
- Developed Excel-based automation tools and Power BI dashboards to streamline reporting, reducing manual effort and lowering operational costs by 20%.
- Conducted aircraft configuration audits and ensured maintenance alignment per OEM manuals, Engineering Procedures Guide, and reliability requirements.
- Integrated and validated data from multiple sources (SAP, SQL, CRM, Power BI) to support reliability and maintenance decision-making.
- Audited aircraft configuration and maintenance records per OEM manuals, ensuring compliance and accuracy.
- Fostered strong customer relationships by clarifying maintenance requirements and aligning reliability objectives.

Aircraft Maintenance Trainee | *GMR Aero Technic - Hyderabad, India*

March 2021 - Nov 2021

- Prepared aircraft work packages and ensured tooling, parts, and materials availability.
- Supported scheduled and unscheduled maintenance, troubleshooting hydraulic, avionics, and landing gear systems.
- Maintained FAA/DGCA-compliant records, service bulletins, and lease return documentation.
- Performed component replacements, functional tests, and stock audits to ensure safety and airworthiness.
- Coordinated with maintenance teams and vendors to minimize turnaround time and improve efficiency.

Line Maintenance Planner | *TS Aviation Academy- Hyderabad, India*

Nov 2020 - Feb 2021

- Performed line maintenance and troubleshooting on Cessna 172/152, DA-42, and Learjet 25B aircraft.
- Conducted pre-flight checks, fueling, and component inspections to ensure airworthiness and safety.
- Assisted in routine and unscheduled maintenance of hydraulics, avionics, airframes, and landing gear.
- Maintained DGCA/FAA-compliant logs and service records, ensuring traceability and compliance.

EDUCATION

Kent State University - Kent, Ohio (3.8 GPA)

Dec 2024

- *Master of Science, Business Analytics (STEM Extension)*

Coursework: Predictive Modeling, Statistics in Business Analytics, Data Management and Business Process Modeling, Machine Learning using Python, Data Mining and Business Intelligence, Introduction to Project Management.

Jawaharlal Nehru Technological University - Hyderabad, India

Aug 2022

- *Master of Science: Aviation*

Telangana State Aviation Academy - Hyderabad, India

June 2020

- *Diploma in Aircraft Maintenance Engineering (DGCA Approved).*
-

SKILLS

- **Tools and Frameworks:** Airtable | Component Control Quantum | Python | Power BI | MS Excel | SAP | CRM | SQL | OneDrive | MS SharePoint | CRM | Adobe | Google Analytics | SMS | ERP
 - **Expertise:** FAA/EASA Regulations Part 145, Part 21|8130-Tags| AMM/EMM/CMM, IPC, SRM, Aviation Technical documents.
 - **Databases:** Oracle SQL Server | MySQL
 - **Analytics:** Predictive Modeling | Statistical Modeling | Root Cause Analysis | Reliability Analysis | Regression - Linear & Logistic | Hypothesis Testing | A/B Testing | Clustering | Classification | Decision Trees | Data Visualization | Forecasting | Exploratory Data Analysis
 - **Techniques:** Strategic Awareness | Project Management | Risk Management | Storytelling | Agile (Scrum and Kanban) | Business Management | Architecture
-

CERTIFICATIONS:

- ATA104 Level 1 General Familiarization on Pratt and Whitney Engines
 - Career Essentials in Data Analysis by Microsoft and LinkedIn.
 - Lean Six Sigma Foundations - Upskill
-

ACHIEVEMENTS:

- ACE pilot for performing QCPC & RRCA | Awarded silver and bronze for valuable Team and performer.