

## **Madan Lal**

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### **Professional Summary:**

Enthusiastic data professional with 3 years of experience in business intelligence across various industries, including Automotive, Manufacturing, Services, and Advertising. Proficient in using SQL, Python, HTML, DAX and Syntax languages along with expertise in data analysis, visualization, reporting using MS Visual Studio, Pycharm, MS Excel, Power BI, Tableau, to improve workflows, automate tasks, and provide valuable data insights.

Experienced in turning complex data into clear recommendations that help improve efficiency, reduce costs, and increase revenue. Focused on using data to help companies make better decisions and continuously improve their processes to support long-term success.

### **Technical Proficiencies:**

- **Customer Relationship Management (CRM) & Enterprise Resource Planning (ERP):** Salesforce, Epicor, FileMaker PRO, JIRA, Hubspot, Monday.com, SAP (ECC, 4HANA).
- **Data Languages:** Python, HTML, MySQL, Syntax, DAX, VBA.
- **Data Warehousing & Big Data:** Snowflake, AWS, Google BigQuery, Azure Data Lake, ODBC RDMS
- **Data Analysis & Visualization:** Power BI, Tableau, Google Analytics, Microsoft Office Suite 365 (Visual Studio, PyCharm, Excel, Powerpoint, Visio, Power Automate, MS Forms), MySQL Workbench.
- **Analytical Methodologies:** Agile, Six-Sigma, Statistical Analysis, Predictive Modeling, Performance & Trend Analysis, Financial & Production Analysis.

### **Professional Experience:**

#### **Business Data Analyst | Power BI Developer**

**Eurospec Tooling Inc., Permanent Full-time (Hybrid) | Newmarket, ON**

**Jan 2024 to Present**

#### **Data Analysis & Visualization at Eurospec Tooling:**

- Implemented PowerBI to enhance reporting capabilities at Eurospec Tooling, transitioning from traditional Excel reports to dynamic PowerBI dashboards. These dashboards now deliver real-time insights into key manufacturing operations, including the performance of the 6 heavy stamping presses and 50+ assembly machines. Data visualizations provide a comprehensive view of production efficiency, machine utilization, downtime, and part quality for each stage of the forging and assembly processes.
- Used SQL queries to extract, merge, and standardize data from Eurospec's relational databases (RDMS), enabling seamless integration across various systems such as Epicor ERP. This ensured consistent datasets for monitoring the lifecycle of automotive parts from the forging stage to final assembly, providing a holistic view of production processes.
- Leveraged Python, SQL, DAX, and Power Queries to clean and transform structured and unstructured data. This effort optimized data for reporting on the stamping press performance, machine health metrics, and parts assembly efficiency, enabling more precise and actionable insights for operations teams.

### **Predictive Analytics & Reporting for Manufacturing Operations:**

- Collaborated closely with cross-functional teams, including engineering, production, and quality control, to understand the unique reporting needs for the forging and assembly operations. Custom reports and predictive models were developed for predictive maintenance of the stamping presses and assembly machines, ensuring minimal downtime and extended equipment life.
- Built and validated logical and physical data models that interconnected production data from the stamping presses, machine utilization data from assembly lines, and quality metrics of forged parts. These models adhered to Eurospec's data governance policies, improving the accuracy of predictive analytics related to equipment failure rates, part defects, and overall production throughput.

#### **Data Integration & Automation in Manufacturing Processes:**

- Integrated data from various sources, including Epicor ERP, SQL databases, and machine sensors from the stamping presses and assembly machines, using ODBC for seamless PowerBI integration. This integration provided real-time performance insights into key operational metrics, such as production rates, tooling efficiency, and machine cycle times for both stamping and assembly processes.
- Automated data collection and reporting processes using Microsoft Power Automate, drastically reducing manual reporting efforts. The automation streamlined workflows by ensuring data from the stamping presses and assembly machines were automatically captured, processed, and presented in real-time. This led to quicker identification of bottlenecks, optimization of production schedules, and improved resource allocation across the forging and assembly lines.

#### **Key Projects:**

- **OEE Dashboard:** Designed an advanced Power BI dashboard to track Overall Equipment Effectiveness (OEE%), production volumes, runtime, downtime, and other critical metrics. This tool provided the Director of Manufacturing with real-time insights and trend analyses to support strategic and financial decision-making.
- **Maintenance department, Preventative Maintenance Schedule automation and management;** Led the development project of a fully automated data collection system, transitioning from manual documents to digital processes by implementing Power BI (SQL & DAX), Excel VBA, MS Forms. This initiative reduced manual data entry time by 75%, improved data accuracy, and eliminated manual processing errors.
- **Waste Reduction:** Gathered data on parts production cycle time and scrap quantities and provided insights to increase the production cycle time and scrap reduction. The data gathered on PPM was used and integrated into high level department and decision-making process for 2024.

#### **Production Lead | Data Analysis & Process Optimization**

**Marketing.com | Brantford, ON**

**June 2022 Dec 2023**

#### **Data Management & Reporting Optimization:**

- Designed and managed production and inventory databases using MS Office 365 tools (Excel, SharePoint), automating data entry processes to enhance reporting accuracy and operational transparency.
- Developed interactive dashboards and automated reports with Tableau and Power BI, enabling real-time data visualization and performance tracking for cross-departmental teams.
- Utilized complex Excel functions, pivot tables, and VBA scripting to automate reporting, significantly reducing manual intervention and improving decision-making speed.

#### **Project & Production Planning:**

- Spearheaded production planning for multiple projects, from initial acceptance through to execution, including material and substrate analysis across 12 heavy printing machines (Display Signs, Backlit, Magnetic).
- Collaborated with cross-functional teams (CSRs, Material, Estimating, Shipping) and external vendors to compare pricing, finalize decisions, and ensure cost-effective production.
- Managed production timelines and provided regular updates to department heads via FileMaker PRO and MS Office 365 tools, ensuring project milestones were met.

#### **Cross-Departmental Collaboration & Issue Resolution:**

- Worked closely with teams to identify and resolve production inefficiencies, using SQL queries and root cause analysis to find and address underlying issues.
- Provided real-time performance tracking during live production events and system testing using Google Analytics and Tableau, minimizing disruptions to operations.

#### **Team Supervision & Performance Analytics:**

- Led a team of 30+ workers, leveraging data analytics tools like SQL and Excel to analyze cycle time and production performance, identifying areas for improvement.
- Automated performance tracking and scheduling by developing customized reporting tools in Excel and Power BI, optimizing resource allocation and improving operational efficiency.
- Applied data insights to continuously improve team performance and optimize workflows, driving productivity gains.

#### **Material & Labor Forecasting Using Data Analytics:**

- Developed predictive models for labor and material forecasting by analyzing historical production data, improving alignment between procurement and production demands.
- Leveraged time-series analysis and statistical methods to refine forecasting accuracy, optimizing inventory management and reducing instances of stockouts and overstocking.

#### **Cycle Time Optimization & Data Troubleshooting:**

- Conducted in-depth analysis of production cycle times across various stages using SQL queries and Tableau visualizations to identify and address bottlenecks.
- Utilized statistical analysis and performance data to propose actionable process improvements that optimized cycle times.

#### **Data Integration & ETL Process Optimization:**

- Led the execution of ETL (Extract, Transform, Load) processes to integrate data from multiple production systems, ensuring consistency and accuracy across platforms.
- Developed and optimized SQL-based stored procedures to automate data flows, streamlining integration and improving reporting accuracy.

#### **Advising Sales Team on Data-Driven Production Capacity:**

- Implemented Salesforce-based solutions for managing customer orders and streamlining communication across teams.
- Provided actionable insights to the sales team on production capacity, utilizing SQL, Tableau, and historical trend analysis to align production schedules with sales forecasts.
- Delivered strategic recommendations on resource allocation and capacity planning to ensure production goals were met while maintaining cost efficiency.

#### **Key Projects:**

- **Automated Capacity Planner:** Led the integration of Power BI into the organization, improving data visualization and automating capacity planning across multiple departments. Developed a custom

capacity planner using SQL for real-time data modification and analysis, optimizing production scheduling for Litho, Screen, and Digital Printing departments, including 20 heavy printing machines.

- **Optimized Production Scheduling and Shipping Alignment:** Created a protective data analysis tool that integrated production schedules with shipping plant requirements, ensuring seamless coordination between departments. This automation minimized scheduling errors, improved production throughput, and reduced downtime by providing accurate, real-time insights into capacity and resource allocation.

#### **Education:**

- Global Business Management (Business Analytics and Project Management  
Conestoga College Institute of Technology and Advanced Learning, 2020
- Bachelor of Commerce  
Punja University, 2015

#### **Certifications & Licenses:**

- Microsoft office suite 365 (Certified)
- Tally 6.3, 30 hours (Certified)
- ISO – Health & Safety (Licenced) (Supervisor Level)
- Smart Serve (Licenced)
- Safe Food Handler (Licenced)
- Security Guard (Ontario Licensed)

#### **Soft Skills:**

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|-----------------------|--------------------------|
| • Critical Thinking   | • Business Acumen        |
| • Agile Methodology   | • Presentation Skills    |
| • Problem-Solving     | • Teamwork               |
| • Communication       | • Curiosity              |
| • Collaboration       | • Emotional Intelligence |
| • Attention to Detail | • Negotiation            |
| • Time Management     | • Project Management     |
| • Adaptability        | • Stakeholder Management |

#### **Additional Accomplishments**

- **Leadership & Training:** Trained junior analysts and other department leads on the navigation and use of Power BI and Tableau, fostering a data-driven culture across departments.
- **Volunteer work:** Organized data literacy workshops for production floor staff, helping them understand the purpose for collecting the time cycle and using it for operational improvements.