Cyril Praveenraj Jeswanthraj

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Education

•Master of Industrial Engineering (MEng) *2023-2025*

Concordia University, Montreal, Canada

•Bachelors of Mechanical Engineering (BEng) *2018-2022*

Sathyabama University, Chennai, India

Projects

•Inventory Optimisation for Auto part retailers

An advanced inventory management model for Auto parts retailers using predictive analytics.

- Analyzed historical sales data and demand patterns of over 50,000 SKUs to forecast future demand, leading to a improvement in inventory turnover rate
- Implemented and continuously monitored the inventory management system using advanced predictive analytics, adjusting inventory levels based on performance metrics.

•Prediction of RUL for NASA's Turbofan jett engine using ML

An machine learning model which can predict the RUL.

- Developed and trained a Long Short-Term Memory (LSTM) neural network model with 90% accuracy to predict the Remaining Useful Life (RUL) of NASA's turbofan jet engines..
- Utilized sensor data to forecast engine failures, enhancing maintenance schedules and reducing downtime.

•Strategic Deployment of Internet Switch Hubs in Montreal

A mathematical model which can .

- Developed a mathematical model in CPLEX for deployement for Internet hubs.
- Used Capacitated facilitated approach to developed the model.

Experience

•Teaching Assistant - Kinematics of Machinery *Jan 2024*

Concordia Univeristy

- Tutored and evaluated MECH 343 students, providing detailed guidance on kinematic and dynamic analysis of linkages, machine and gearbox design, and SolidWorks, resulting in improved student performance.

•Engineer - Sourcing/New Product Developement *Aug 2022 - Aug 2023*

Tubes Investment of India - Murugappa groups

- Evaluated and finalized suppliers for critical components (oil seals, gearbox, traction motor, propeller shaft, axles), using benchmarking and parametric evaluation to ensure quality and cost efficiency.
- Successfully facilitated over 10+ contract negotiations, securing favorable terms that saved 5% on project costs.
- Utilized SAP to streamline order execution and supplier management, enhancing accuracy and efficiency.
- Developed and executed comprehensive sourcing and negotiation plans, achieving a 5% reduction in project costs through market analysis, benchmarking, and strategic negotiations.

•Process Intern *Nov 2021 - Apr 2022*

Faurecia

- Reduced airbag assembly cycle time by 15% through process optimization and tool change maintenance, conducted root cause analysis, and applied Lean Six Sigma tools to enhance production efficiency while maintaining safety standards.

Technical Skills

Languages: C/C++, Python.
Libraries NumPy, Pandas, Matplotlib, Scikit-learn, TensorFlow.
Application: SAP, CPLEX, PowerBI, MS word, Powerpoint, Excel
Softwares: CATIA V5, SolidWorks, ANSYS(Rigid bodies), AutoCAD
Relevent Coursework: Production planning and Control, Applied Optimisation, Discrete System simulation, Probability and Stats, Supply chain and Logistics, Production planning and control.
Areas of Interest: Data analytics, forecasting, Machine learning, Supply chain, Procurement and Sourcing.
Languages: English, French, German, Tamil
Certification: Lean Six Sigma green belt

Achievements and Others

•Outstanding Performance Tubes Investment of India - Chennai, India *Oct - Dec 2022*

- Was nominated as the best candidate among the 25 GET trainees during the three-month training period in the field of Industry and electric vehicles.