

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 deployment 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 Development** 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

Relevant Coursework: Production planning and Control, Applied Optimisation, Discrete System simulation, Probability and Stats, Supply chain and Logistics.

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.