Ganeshan Subramanian

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Graduate student pursuing Master of Industrial Engineering at North Carolina State University, graduating in May 2021. Having **1** year of work experience in the areas of manufacturing, operations and supply chain management. Worked in challenging research projects in the areas of supply chain, logistics, data analytics and product development.

EDUCATION

Master of Industrial Engineering | North Carolina State University **Aug 2019 – May 2021**
GPA – 3.75/4

Graduate Research | Proximity Factor analysis in logistic networks | Guide – Dr. Michael Kay: Comparative analysis of demand flow in various logistic networks using distance & population for computing without any external parameters. On using proximity factor as a parameter, demand flow was observed to be limited at larger distances due to feasibility. Error calculation with real data in airline logistic network proved proximity factor parameter essential for predicting demand flow.

Bachelor of Technology Production Engineering | Veermata Jijabai Technological Institute **July 2015 – May 2019**
CPI – 7.58/10

CERTIFICATION

Certified Associate in Project Management (CAPM) | Project Management Institute - Credential ID #2979547
Supply Chain Analytics (SC0x) | Massachusetts Institute of Technology - Credential ID 1efe8a49c4da4c2fab17668ae32f36c9

WORK EXPERIENCE

Godrej Aerospace | Engineering Intern **Jun 2018 – Dec 2018**

- Designed an optimized plant layout on studying the existing plant using Industrial engineering techniques viz. value stream mapping, time and motion study, to be implemented by the company for its new plant location. The optimized layout resolves majority of the material & man movement issues and reduces downtime involved in process workflow.
- Designed component storage boxes using standardized 5S methodology and handled the procurement of these boxes. This standardization reduced the material handling mishaps in the plant & they were ergonomically easier to carry.
- Performed TPM audits and identified various scenarios to incorporate Kaizen methodology for continuous improvement in both machine shop and office sections, to improve equipment reliability & increase productivity.
- Designed fixtures and process sheets for milling operations and optimized manufacturing processes.

ASB International | Engineering Intern **Dec 2017 – Jan 2018**

- Performed simulations for Mazak machine turning operations and trained operators for performing CNC operations.

Godrej Interio | Engineering Intern **May 2017 – Jun 2017**

- Developed a tool management system to ensure proper identification, tracking and tool life monitoring of fixtures used in furniture manufacturing. This helped in conducting thorough TPM audits on a quarterly basis.

Volvo Eicher Engineering Components | Engineering Intern **Dec 2016**

- Performed a process capability analysis on a hobbing machine from a statistical process control standpoint from a dataset of inner diameter readings of gears used in differential gearbox.

ACADEMIC & INDUSTRY PROJECTS

Warehouse Management System: DBMS for automating total inventory control integrating BOM during procurement, production & dispatch activities using SQL and VBA. Integrated with visualizations for inventory level & quality reports.
Retail Store Locator: DBMS using SQL to locate the nearest Walmart, Target, Food Lion, CostCo, Sam's Club & Murphy's within average customer travel willingness from selected zip code centroid locations.
Optimizing compressive strength in concrete recipes: Regression analysis of 1030 observations to determine effect of 8 parameters on compressive strength of concrete for computing optimal values for maximum compressive strength.
Design of Experiments in Precision Parts Manufacturing: Exploratory data analysis & factor analysis to identify factors affecting variability in molded parts to predict optimal settings; reducing geometric variability in the manufacturing process.
Automated Material Handling System: Developed a prototype using PLC programming to sort objects of different dimensions and materials using pneumatic actuators, photoelectric and electromagnetic sensors.
Supply planning during covid-19 for Lenovo products: Demand prediction with 80% accuracy from parameter effects on covid-19 sales & triple exponential smoothing forecast. Proposed inventory policy saving 25% supply chain costs.
Production Planning Control at Dynatrol Corp: Identified bottleneck at Andover assembly for throughput and cycle time computations. Suggested improvements in the production policies for reducing inventory holding with demand variability.
Schedule Planning at Blanchard Importing Co: Performed cost analysis computing setup and holding costs to determine EOQ & ROP. Performed Wagner Whitin analysis to suggest an inventory policy to reduce setup & holding costs.
Telehealth monitoring system prototype: Concept development integrating IoT sensors, LEO satellite systems & cloud services for monitoring vitals of cardiovascular patients in remote locations. A go-to-market strategy was proposed.

SKILLS

Software: SQL, MS Excel, VBA, Tableau, Power BI, C++, Python, R, MATLAB, JMP, Minitab, AutoCAD, ProE, AMPL
Competencies: PLC programming, Statistical Process Control, Project Management, Demand Planning and Forecasting, Enterprise Resource Planning, TOC principles, Value Stream Mapping, System Optimization, CNC programming