Ashwin Muthiah Murugappan

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EDUCATION

Northeastern University

Boston, MA

Master of Science in Industrial Engineering. GPA 3.85/4.00

May 2020

Relevant Coursework: Deterministic Operational Research, Engineering Probs & Stats, Supply chain Engineering.

Sri Venkateshwara College of Engineering (SVCE)

Chennai, India

Bachelor of Science in Mechanical Engineering. GPA 7.80/10.00

May 2018

RELEVANT SKILLS

Programming and database : Python, R, SQLite, PostgreSQL

Application and packages : SPSS, MS Office(Macros, Pivot table), Tableau, Power BI, SAP crystal Reports, SharePoint

• Certifications and Concepts : Lean Six Sigma Green Belt , Demand Planning , Forecasting, Process Improvement.

RELEVANT EXPERIENCE

Research Assistant, Northeastern University, Boston, MA

January 2019 – Present

- Extracted data from the MIMIC-III (Medical Information Mart for Intensive Care) database created by MIT containing 500 million records using PostgreSQL and python.
- Collaborated with cross-functional teams from different domains to reduce the number of variables from 450 to 300 which aided in the easy analysis of the Data.
- Analyzed the database to find anomalies in the database and determine how these anomalies can help in better understanding
 of the healthcare system and the patients.

Research Assistant, Sri Venkateshwara College of Engineering, Chennai, India

June 2016 - June 2018

- Designed, created, and tested a strategic model for the Manufacturing industry that analyses the environmental risks involved in a supply chain which resulted in a 20% increase in overall productivity.
- Created comprehensive literature reviews of over 1,000 research papers using Google Scholar.
- Analyzed Small and medium scale industries data to resolve distribution bottlenecks and to add robustness with the help of mathematical modeling, proposed changes to the network for reducing the inefficiencies of the supply chain.

Data Analyst Intern, Caterpillar Inc, Chennai, India

June 2017 – Aug 2017

- Extracted data from the SQL database containing around 60,000 records into excel and cleaned the data.
- Designed correlation and factors analysis model that determined the relationship between cause and effects, separate the major 5 factors which affect the price quotes by a supplier.
- Contacted 60 suppliers to better understand the factors involved in determining the quotation, collaborated with supervisor and top management to develop a cross-functional team to facilitate price negotiation.

PERSONAL PROJECTS

Analysis of implementation of lean six sigma in SME

Dec 2017 – Apr 2018

- Conducted a survey and collected 5,000 responses from over 70 small and medium scale companies, Preprocessed the data.
- Developed a model to find the critical success factor which affects the implementation of lean six sigma in small and medium scale industries and conducted a factor analysis to filter out 10 most critical factors.
- Designed correlation and regression models that analyze the relationship between variables and the relationship between the dependent and independent variable.

PUBLICATIONS/CONFERENCES

An empirical study on environment risk management in small and medium enterprises (SME).

Apr 2018

- Surveyed a group of 60 Small and medium scale Industries to collect data regarding the quality standards, processes, employee facilities, production rate.
- Identifies and analyzed the environmental risk involved in the supply chain using regression and correlation models to identify the major factors influencing the efficiency of a supply chain.
- Presented the findings at the international conference and published the paper at Progress in Industrial Ecology, An International Journal. DOI: 10.1504/PIE.2017.091299

LEADERSHIP AND AFFILIATIONS

President, Quality management center (member since 2014), SVCE Student Chapter

June 2017 – June 2018

Human resource coordinator, Bhumi-computer science project, NGO

June 2016 – Apr 2018

Secretary, Society of Mechanical Engineers, SVCE student chapter

Aug 2015 - May 2016