PARTH RAJU KHAMKAR

+1 9842338634 ⋄ pkhamka@ncsu.edu ⋄ LinkedIn ⋄ Raleigh, NC 27606 USA

EDUCATION

Masters in Integrated Manufacturing Systems Engineering (CGPA: 4/4) August 2022 - May 2024
North Carolina State University, Raleigh, NC
- **Courses:** Operations Research, Supply Chain Logistics, Design & Control of Production & Service Systems, Modeling & Analysis of Supply Chains, Database Applications in Industrial Engineering, Statistics

Bachelor of Technology in Mechanical Engineering (CGPA: 9.10/10)   August 2018 - June 2022
Sardar Patel College of Engineering(SPCE), University of Mumbai, Mumbai, India
- **Courses:** Lean and Green Manufacturing, Manufacturing Planning and Control, Supply Chain Management, Introduction to Optimization Methods, Industrial Engineering and Project Management, Big Data Analytics

PROFESSIONAL EXPERIENCE

Volvo Trucks North America - Logistics Engineering Intern   May 2023 - Dec 2023
- Assisted in the development and updating of logistics Plan for Every Part (PFEP), ensuring better material replenishment, improved material flow from docks to POU, and increased data accuracy
- Reviewed budget from past years and performed a quick Kaizen to the design of fleets saving $25k/year
- Designed and implemented a **PowerBI** based seasonality tool that proactively identified and flagged instances where demand surpassed capacity at critical use points, effectively averting part shortages
- Utilized **AutoCAD** to create, update, and maintain warehouse layout designs, resulting in efficient space optimization, better visualization, and improved mapping accuracy.

Tata Institute of Fundamental Research - Intern   December 2021 - January 2022
- Hands-on training on various workshop machines including a 5-axis CNC machine
- Identified bottlenecks in the processes and reduced process times that increased output by 10%
- Implemented **5S** lean methodology to manage inventory which helped to reduce machining downtime by 20%

SPCE Robocon - Team Management Lead   July 2018 - August 2021
- Designed CAD models on CATIA v5, SolidWorks 2020 and Autodesk Fusion 360 and trained new members
- Led a team of 5 for purchasing, workflow management & engagement with team sponsors

Siemens - Trainee - PLC & HMI   November 2019 - December 2019
- Worked on the basics of Programmable Logic Control and Human Machine Interface
- Implemented applications of **PLC** & **HMI** in company systems for optimization of assembly lines

ACADEMIC PROJECTS

Logistic Network Analysis   August 2022 - December 2022
- Modeled 'Feasible Location Solver' for manufacturing plants serving customers throughout the United States
- Generated population aggregated demand points for customers in different cities and performed linear regression for subsequent Fixed Cost analysis to open a new facility for the location obtained from the Solver
- Developed Nearest Neighbor algorithm to devise a routing structure for vehicle routing problems

Integrated Model for Production Planning of Perishable Product   November 2022
- Modeled and solved the problem as a Mixed Integer Programming model using **Gams** and **Lindo** software
- Reduced the overall cost by **5.8%** by changing the transporting vehicle capacity from 8 tons to 20 tons

Research Review on Production Planning of Rajarambapu Sugar Factory   November 2022
- Forecasted demand values for the year 2017 using Holt-Winters' seasonal forecasting model on **Excel solver**
- Modeled and developed an **Aggregate Production Plan** using Excel solver that minimized the total cost
- Compared different strategies and suggested using Chase strategy that gave the minimum overall cost

Use of Big Data Analytics in Import-Export Analysis of India   March 2022 - May 2022
- Collected India's import-export data from 1997-2019 and stored it in HDFS using '-mkdir' command
- Processed the data in **Jupyter** notebook using pyspark and forecasted 3 years ahead using SARIMAX model
- Visualized the processed data using data visualization tools such as **PowerBI** and **Tableau** and concluded that growth of imports was minimum in 2015 while growth of export was minimum in 2001

SKILLS

Programming	C++, Lindo, Gams, Python, HTML5, CSS3, JavaScript, MATLAB
Technical	AutoCAD, CATIA v5, DDS SolidWorks
Business	Microsoft(Word, Excel, PowerPoint, Access, Visio, Power BI, Power Automate), Tableau, SQL
Certifications	Supply Chain Logistics, Operations Management, Manufacturing Process Analysis