KEVIN GEORGE

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Objective

Motivated Student with 5+ years of industry experience and passionate to accomplish in the fields of Supply Chain, Logistics, Manufacturing, Quality Control, Business Analytics, Optimization and Data Science. Currently seeking fulltime opportunity for fall 2024

Education

- MS in Industrial & Systems Engineering (GPA-3.92/4), ROCHESTER INSTITUTE OF TECHNOLOGY, USA (Aug2019 – May 2022)
- BS in Electrical & Electronics Engineering (GPA – 7.7/10), NATIONAL INSTITUTE OF TECHNOLOGY Calicut, India (Jun 2011 - May 2015)

Academic Projects

- **ENERGY SUPPLY CHAIN- BATTERY OPTIMIZATION (THESIS):** Developed a multi-objective optimization model meeting demand, capacity constraints to minimize electricity cost in homeowners and CO2 emission due to BESS operation under TOU pricing using demand data.
- **MANUFACTURING SIMULATION**: Improved time in system, throughput, estimating safety stock, kanban size for varying setup time using discrete event simulation in Simio and implemented JIT inventory strategy using DOE reducing entire operational cost of facility by 45%.
- **SUPPLY CHAIN DESIGN:** Developed multiple SKU network decision models in python using MILP determining number of DCs, flow rates meeting demand and capacity constraints, and minimized total cost by 40% including inbound and outbound transportation costs. Built baseline models, advanced scenarios using sensitivity and multiple what-if analysis to calibrate model to reality.
- **FACILITY LAYOUT OPTIMIZATION**: Planned and developed a manufacturing and warehouse facility layout in AutoCAD and Visio to streamline process flows, improving material handling, maximizing space utilization after analyzing supply, demand and inventory data of 3000SKU.
- **ROCHESTER HOSPITAL IMPROVEMENT PROJECT**: Administered statistical analysis in JMPro /Minitab comparing performance of hospitals in Rochester using hypothesis testing and ANOVA. Also, developed multivariate regression models to predict sepsis mortality rate and stay-length of patients and presented using dashboards in Tableau.
- **ANOMALY DETECTION USING MACHINE LEARNING**: Used KNN, Logistic Regression, Random Forest, SVM grid search on cancer data identifying malignant or benign tumor and validated on test set using confusion matrix with precision, recall and F1 score above 0.9.
- **PROCESS PERFORMANCE ANALYSIS USING DESIGN OF EXPERIMENTS(DOE):** Performed screening, characterization and optimization experiments using Response Surface Design identifying KPI's and created a mathematical model maximizing target response.

Work Experience

Industrial Engineer, TESLA, *Lathrop,California* (Jun 2022 – May 2024)

- Developed operational strategy for LDU reman line using complex cost models reducing total cost: BOM + Labor by 45%
- Led cost reduction initiatives for major lines in US/EU by developing, monitoring relevant KPI's in Ziplabs & weekly calls with global team.
- Built SimPy+FlexSim models analyzing product scrap/salvage rate, stay-time using CAC match logic & optimizing storage space in CAD by 30%.
- Collaborated with cross-function team in the design/launch/ramp of SX next-gen line increasing capacity by 80% and LHPU reduction of 36%.
- Performed capacity analysis, simulations, kaizen events, line balancing, WIP analysis, removing bottlenecks, optimizing headcounts, number of stations, shifts, reducing NVA tasks, minimizing LHPU and facilitating significant ramp up for SX, M3, LDU, P2,W242 and 3DU reman lines.

MFE-IE Intern,TESLA, *Lathrop,California* (Aug 2021 – Jan 2022)

- Reduced seepage failures by 63% by analysis using SQL query, pareto, RCA, chi-square test for technician, equipment & process significance.
- Optimizing MRB operation area by estimating arrival trends, trailer cost increasing warehouse footprint by 14000 sq ft.
- Developed python script (ETL) identifying obsolete parts in warehouse from 3 databases mapping to packaging, planner and commodity info.

Co-op Manufacturing Engineering Logistics, VOLVO CONSTRUCTION EQUIPMENT, *Shippensburg,Pennsylvania* (Feb 2021 - Aug 2021)

- Leveraged value stream map, RCA, time studies identifying NVA cost & proposed digitalization of kanban card saving $40k in delivery process
- Analyzed inventory data from SAP, redefined picking, delivery process of kitting parts and thereby eliminated andon calls by 40%.
- Develop interactive dashboards in power BI analyzing material handling equipment utilization, maintenance cost aiding in leasing decisions.
- Optimized packaging in CATIA, redesigned rack layouts in CAD based on work center kitting instructions improving picking efficiency by 40%.
- Reallocated warehouse storage location based on product demand, type, inventory improving put away process by 60% and overflow by 45%.

Graduate Teaching Assistant , Rochester Institute of Technology, *Rochester, New York* (Aug 2020 – Dec 2020)

- Collaborated with professor to design assignments, grade projects and tutoring graduate students for Lean Production (ISEE626) course.
- Orchestrated a design team to launch an improved product using cost-benefit analysis, FMEA, 5-Why, 8D, VOC, QFD, market assessment.

Senior Engineering Consultant, TATA CONSULTING ENGINEERS LIMITED, *Mumbai, India* (Jan 2016 - Jul 2019)

- Managed multiple projects by design engineering, strategic sourcing, onsite quality inspection, supplier development and procurement.
- Owned complete vendor assessment process by conducting techno-commercial bid analysis, quality assurance planning, technical evaluation, negotiation, selection activity(RFP,RFI,RFQ) and prepared verification, validation (IQ,OQ, PQ) report assuring quality and saving client $100k
- Reduced project costs by 30% by revamping power distribution plan, BOQ, detail-end engg. design, tender docs, GFC drawings along with technical analysis, change control and quality assurance planning.

Skills

- **Software & Programming:** Python|SAS|JMP|Simio|R|Tableau|SQL|MATLAB|Minitab|Visio|MS Office|C| C++|CATIA|AutoCAD|SAP|CPLEX
- **Supply Chain**: Lean|5S|RCCA|DMAIC|Kaizen|5Y|Poke Yoke|DFA|A3|VSM|PDCA|JIT|Kanban|LCA|SIPOC|NPI
- **Manufacturing & Quality**: Six Sigma|PFMEA|SPC|PPAP|GD&T|DOE|GageR&R|TQM|7 QC tool|8D|CAPA|APQP|SOP
- **Tools/Framework**: Keras|Scikit-learn|Tensorflow|PySpark|Flask|Pandas|Matplotlib|Seaborn|Plotly|Cufflinks| Statsmodels| Dplyr|VBA
- **Certification**: Green Belt in Lean Six Sigma| IBM Data Science with Python | R programming for Statistics and Data Science
- **Leadership**: Strategic Thinking| Planning and Delivery | People Management | Persuasion and Influence | Change Management
- **Competency**: Machine Learning|Deep Learning| Design of Experiments| Optimization|Data Visualisation|Process Capability Analysis|Data Analysis|Project Management|Operational Excellence|System Design|Statistical Analysis|Risk Management|Forecasting|Web development