Joseph Tay

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Education

Purdue University | West Lafayette, Indiana   Dec 2016
Bachelor of Science in Industrial Engineering | Minor in Economics | Minor in Statistics   GPA: 3.38

Skills: HTML/CSS, vPython, R, SAS, Swift, C, Matlab, SQL, PHP,
Software: MiniTab, Arena, Photoshop, AutoCAD, Autodesk 3dsMax, MySQL
Languages: English, Mandarin, Korean

Experience

Medtronic PLC, Santa Ana, CA
Manufacturing Engineer II   *Jan 2019 – Present*
Associate Manufacturing Engineer   *Jan 2018 – Jan 2019*
- Writes protocols and reports for qualification and validation activities of process changes and new equipment introduction.
- Investigates and dispositions nonconforming product, evaluates root cause and implements corrective actions to prevent recurrence.
- Provides daily support to troubleshoot and resolve equipment and process issues on multiple manufacturing lines, reducing downtime.
- Identifies process improvement opportunities in the valve assembly process and leads Lean-Six Sigma projects, effectively improving manufacturing yield and optimizing material usage variance.
- Designs manufacturing processes and sequence of operations in compliance with FDA and other regulatory bodies.
- Champions Continuous Improvement projects, providing lean/six sigma green belt mentorship to team members initiating process improvement initiatives.
- Provides solutions to issues related to process, equipment, supply chain and Quality Management Systems.
- Supports 2 Production Value Streams, optimizing manufacturing process through one-piece flow.

FreshRealm LLC, Riverside, CA
Process Quality Engineer   *May 2017 – Jan 2018*
- Wrote, reviewed and maintained integrity of company-wide GMPs, SOPs and Quality Control Policies.
- Facilitated launch of new retail program in freshly-acquired facility, setting up production lines and inventory locations utilizing LSS concepts like Kanban systems (a necessity for JIT fresh food inventory), Cell layouts for efficient product flow and 5S Methodology to minimize waste.
- Trained and managed a team of Quality Control Technicians to perform standardized work involving ground-level quality management tasks.
- Solved and mitigated process and product related non-conformances by owning and leading CAPA projects by acquiring, cleaning and mining data for production-based root-cause analysis of quality issues.
- Managed projects to completion with the use of effective resource management tools like sprint planning and Gantt chart timelines to achieve major milestones.
- Supported fulfilment operations by implementing DMAIC problem solving methodology to help production meet takt times sustainably.
- Drove continuous improvement within production facility to enhance productivity and profitability based on specific key performance indicators while adhering to food safety standards.

Purdue University | West Lafayette, IN
Research Assistant   *Jan 2016 – Dec 2016*
- Performed Human-Machine Interaction experiments funded by a NASA research grant to establish hypothesized discrepancies in flight performance.
- Acquired, cleaned and populated database with only practical data to optimize procedural analysis.
- Investigated the correlation between flight risk and verbal task load intensity on pilots using advanced statistical algorithms.

Singapore Armed Forces | Singapore
Section Commander, Sergeant   *June 2010 – June 2012*
- Led six-man squad during military activities which increased morale and rapport amongst members.
- Devised and executed multiple tactical strategies to improve mission success ratings.

Design Projects

Production Planning System for Job Shop
- Formulated predictive model using data from time studies based on determinable scales and metrics.
- Tested predictive model against historical data, using regression analysis to increase effectiveness of model.
- Developed a production forecast method to assigned work orders accurate deadline estimates, reducing the number of late orders fulfilled.

IT Infrastructure optimization project
- Developed website for simulated wine company's intranet webpage using HTML/CSS.
- Constructed optimal sales model and workflow using Arena Software to determine best allocation of resources.
- Utilized MySQL to develop and query a database of sales and business strategy metrics for easy compilation.
- Generated method to forecast future sales by using R statistical package to analyze metrics queried from MySQL database.
- Designed floor plan for optimum throughput rate of consumers and products using AutoCAD.