

SKILLS

Data Analysis | Data Modeling | Excel | Discrete Event Simulation | Lean Six Sigma | SQL | VBA | Power Query | Visio | Python | C# | C++ | Project Management | Process Improvement | Statistical Process Control | JMP | Forecasting | CAD | Entrepreneurial Thinking | Power BI | Tableau | RCA | Continuous Improvement |

WORK EXPERIENCE

Industrial Engineer | Wolfspeed | *Semiconductor Manufacturing* | October 2023 - November 2024

- Investigated tool & material usage statistics using MES and CMMS log data to program statistical models of factory capacity to forecast KPIs, updating as necessary to capture technical process changes and continuous improvement projects.
- Presented monthly capacity reports to leadership covering equipment availability, utilization, bottlenecks, sales & operations PSI plan implications, and relevant projects effects & risks.
- Led working sessions with process, product, and equipment engineers to document institutional knowledge, quantify cost/benefit of technical changes, and guide project plan implementation.
- Modeled and presented several scenarios to leadership on reducing costs to meet fiscal year cash flow targets, resulting in delaying \$2.2 million dollars in CAPEX to a preferable time period, and executing projects saving \$600k/year in OPEX.

Industrial Engineer | CRB Group | *Pharmaceutical/Life Science Manufacturing Consulting* | May 2022 - September 2023

- Analyzed historical data combined with future demand growth projections to right-size dock, warehouse, and cold room storage space.
- Performed high-level observation & interview-based study to locate areas of improvement within current process, then made recommendations on future studies to analyze root causes and explore possible solutions.
- Utilized expansion designs including floorplans, layouts, and schedules to construct a traffic simulation to inform feasibility of design plans, optimal routes within specified constraints, and areas prone to congestion.
- Created a capacity model to determine the feasibility of a central weigh & dispense station based on anticipated demand, quantified benefits/time savings, then ranked possible locations based on adjacencies, cost and disruption based on current operations.
- Leveraged equipment dedications, historical production data and future projections to run discrete-event simulations. Performed sensitivity analysis on output data to right-size equipment before capital expenditure and to quantify investment return/breakeven points & risk.

EDUCATION

Industrial Engineering B.S. | North Carolina State University

- Business Administration Minor
- Study abroad at Seoul National University in South Korea

PROFESSIONAL INVOLVEMENT

Founder & Local Champion | CRB Young Professionals Employee Resource Group | August 2022 - September 2023

- Lead inception of the Young Professionals group by writing official governing by-laws and procedures.
- Sought and recruited executive sponsors to endorse the group to company leadership.
- Directed educational and social activities within office and outside of work, and coordinated other offices to stand up their own groups and events.