

EDUCATION

Industrial Engineering B.S. | Business Administration Minor | North Carolina State University
National Academy of Engineering Grand Challenge Scholar

WORK EXPERIENCE

Industrial Engineer | Wolfspeed | October 2023 - Present

- Developed queries, analyzed records, and worked with process & equipment engineers to accurately model toolset capacity for existing and future sites in order to answer manufacturing capacity questions (such as tool counts, CAPEX, and production ramp plans) for sales & operations planning.
- Collaborated on developing a standardized capacity model format to be adopted teamwide with improved documentation, ease of use, flexibility, and traceability.
- Responsible for maintenance, continuous improvement, and ownership of entire tool fleet capacities within chemical & mechanical polishing manufacturing module, including ongoing report-outs to directors and what-if scenario analyses.

Industrial Engineer | CRB Group | May 2022 - September 2023

- Analyzed historical receiving, usage, and shipping data combined with future demand growth projections to right-size receiving dock, warehouse, cold room, and shipping dock pallet storage space.
- Performed a high-level observation & interview-based study to locate areas of improvement within current processes, then made recommendations on future studies to analyze root causes and possible solutions.
- Utilized expansion designs including floorplans, layouts, and process schedules to construct a traffic simulation to inform 1) feasibility of design plans, 2) optimal routes within specified constraints, 3) airlock sizing requirements, and 4) potential areas prone to high congestion.
- Created a capacity model to determine the feasibility of a central weigh & dispense station based on future demand, then ranked possible locations based on adjacencies, cost and disruption based on current operations, and quantified benefits/time savings.
- Leveraged facility and equipment layout, historical production data and future projections to run discrete-event simulations. Performed sensitivity analysis on stochastic simulation output data to right-size equipment before capital expenditure and to quantify investment return, breakeven points, and risk.

Registered Pharmacy Technician | CVS Pharmacy | December 2020 - May 2022

PROFESSIONAL INVOLVEMENT

Founder | Young Professionals Employee Resource Group | CRB 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 lead other offices to stand up their own groups and events.

PROJECT EXPERIENCE

Processor Waste Heat Capture | Engineering Entrepreneurs Program | August 2020 - May 2021

- Designed then prototyped a product to recycle the waste heat generated by CPUs, GPUs, and ASICs in server farms and cryptocurrency mining farms to reduce operating costs and carbon footprint.

SKILLS

Data Analysis | Visio | Excel | SQL | VBA | Power Query | Power BI | Discrete Event Simulation | C# | Python | Lean Six Sigma | Project Management | AutoCAD | Logistics | Process Improvement | Entrepreneurial Thinking | SAP | Workday