Paws T. Husky

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Industrial Engineer -- Process Optimization & Sustainable Manufacturing

Innovative industrial engineer with demonstrated skills in optimization, simulation modeling, and digital manufacturing technologies. Expertise in applying advanced analytical methods to complex manufacturing challenges with a focus on sustainability and Industry 4.0 implementation.

CORE COMPETENCIES

- Translate complex technical solutions into practical implementations that deliver measurable improvements in manufacturing efficiency and sustainability.
- Bridge theoretical research and industry application through development of novel algorithms and methodologies that solve real-world manufacturing challenges.
- Develop and implement digital twin technologies that enable predictive capabilities and real-time optimization in production environments.

EDUCATION

NORTHEASTERN UNIVERSITY, Boston, MA
Ph.D. in Industrial Engineering Expected May 2025
GPA: 3.92/4.00

M.S. in Industrial Engineering May 2022
GPA: 3.89/4.00

UNIVERSITY OF MASSACHUSETTS, Amherst, MA
B.S. in Mechanical Engineering, Minor in Mathematics May 2020
GPA: 3.85/4.00

TECHNICAL COMPETENCIES

Optimization Software: Gurobi, CPLEX, AMPL, Python OR-Tools
Simulation: Arena, AnyLogic, FlexSim, Simio
Programming: Python, R, MATLAB, SQL, C++
Data Analysis: Tableau, Power BI, Advanced Excel, SAS
Manufacturing: Six Sigma, Lean Manufacturing, CAD/CAM systems
Industry 4.0: IoT Platforms, Digital Twin Implementation, Predictive Analytics

RESEARCH EXPERIENCE

NORTHEASTERN UNIVERSITY, INDUSTRIAL OPTIMIZATION LABORATORY Boston, MA
Research Assistant April 2022 to Present
Lead research in advanced manufacturing optimization with emphasis on energy consumption reduction and predictive maintenance systems. Design experimental protocols and validate optimization models through real-world implementations.

- Developed novel process optimization algorithm that reduced manufacturing energy consumption by 27% during pilot implementation at partner facility.
- Created and validated predictive maintenance system in collaboration with cross-functional team, decreasing equipment downtime by 31% and improving operational efficiency.
- Authored 3 peer-reviewed journal articles on sustainable manufacturing optimization published in International Journal of Production Research and Journal of Cleaner Production.

PROFESSIONAL EXPERIENCE

JOHNSON AND JOHNSON Boston, MA
Manufacturing Engineering Intern Summer 2021

Supported manufacturing process improvement initiatives at medical device production facility. Conducted time studies, process mapping, and applied Six Sigma methodologies to identify and eliminate bottlenecks in assembly operations.

- Reduced product defect rates by 23% through implementation of statistical process control techniques and root cause analysis.
- Generated recommendations that saved $180,000 annually in material costs through designed experiments and validation of optimization models.
- Collaborated with cross-functional teams to implement lean manufacturing initiatives across production departments, improving overall equipment effectiveness.

NORTHEASTERN UNIVERSITY, DEPARTMENT OF INDUSTRIAL ENGINEERING Boston, MA
Graduate Teaching Assistant September 2021 to May 2022

Taught laboratory sections for undergraduate Operations Research and Simulation Modeling courses to classes of 25+ students. Developed assessment materials and provided individualized guidance to improve student understanding of complex concepts.

- Created interactive learning modules that improved student engagement and assessment scores by 18% compared to previous course offerings.
- Received Excellence in Teaching award based on exceptional student evaluations (4.8/5.0) and innovative instructional approaches.

KEY PROJECTS

NORTHEASTERN UNIVERSITY, Sustainable Supply Chain Network Optimization Summer 2021

Developed multi-objective optimization model balancing cost efficiency with carbon footprint reduction in manufacturing supply chains. Created novel heuristic algorithm outperforming industry-standard approaches by 18% in solution quality.

- Implemented case study with local manufacturer resulting in 22% reduction in logistics-related emissions while maintaining service levels.
- Presented findings at three international conferences including INFORMS Annual Meeting and published methodology in peer-reviewed journal.

LAHEY CLINIC, Healthcare Process Optimization in Emergency Departments Spring 2020

Analyzed patient flow data from three Boston-area hospitals using discrete event simulation techniques. Identified and validated process improvements reducing average wait times by 34% without additional staffing requirements.

- Designed staff scheduling algorithm that improved resource utilization by 21% while maintaining service quality metrics.
- Developed implementation guidelines for system-wide deployment, demonstrating transferability of industrial engineering principles to healthcare settings.

CERTIFICATIONS & PROFESSIONAL AFFILIATIONS

Certified Six Sigma Black Belt (CSSBB), American Society for Quality
Certified Analytics Professional (CAP), INFORMS
Member, Institute of Industrial and Systems Engineers (IISE)
Member, Institute for Operations Research and the Management Sciences (INFORMS)