

Luc Robitaille

4 Merganser rd., Ipswich, MA, 01938 • 978-471-8129 • lucrobes@bu.edu

OBJECTIVE

To advance my career by obtaining a technically focused position at a company focused on Robotics, Industrial Automation, Digital Industrial Revolution (Industry 4.0), with opportunities to excel in a culture of learning, innovation, and teamwork dedicated to solving the world's most important challenges.

EDUCATION

Boston University College of Engineering, Boston, MA

September 2013-May 2017

Bachelor of Science Mechanical Engineering

University of California Berkeley, Berkeley, CA

August 2021- Present

Masters of Information and Data Science (MIDS) Candidate

GPA: 3.85

Notable Courses: Statistics, Data Engineering, Applications of Machine Learning, Data Visualization, Computer Vision, Machine Learning at Scale

WORK EXPERIENCE

Technical Manufacturing Corporation (TMC-AMETEK), Peabody, MA

June 2015 – January 2023

TMC is the industry leader in design and manufacturing of precision vibration isolation technologies for life sciences, precision metrology, semiconductor fabrication.

Manufacturing Engineer (October 2017-January 2022)

- Experience in Capital Expense projects including: large footprint sheet metal fabrication machinery, Custom CNC Machinery
 - Experience in specing industrial machinery including: CNC lasers, breaks, punch-presses, chillers, tanks, air compressors, precision inspection machinery, Water Jets, Band Saws, CNC Mills and Lathes.
 - Experience managing projects that include special concrete padding, air and gas lines, rigging, auxiliary industrial chillers.
 - ROI justification, Capital Expense Project Writing, Custom Capital Equipment Project management, Contractor Management.
- Designed and Implemented One-Piece-Flow Manufacturing Assembly Cells for legacy production lines, increasing throughput by 33%
- Transitioned high-performance R&D product into manufacturing production decreasing lead-time from 16 weeks to 6 weeks.
 - Designed fixturing, work-cell, workflow, in-process quality testing of isolators to minimize defects and optimize throughput.
 - Created Quality Process Control and 100+ page Manufacturing Documentation.
- Managed 20,000 sq. ft. manufacturing area redesign for large-footprint Optical Tables product line accounting for 20% of company annual revenue.
 - Created One-Piece Flow and Inventory Control system.
 - Increased productivity by 20% by consolidating inventory, increasing efficiency of material flow, implementing new tools and fixtures.
- Designed and Managed Custom CNC Machine Creation for Inspecting Key Performance Factors of Optical Tables.
 - Wrote Project Scope, Capital Equipment Financial Justification, Managed Contractors, Contributed Code and Mechanical Design.
 - Machine uses CNC controls, Gantry style 3-axis frame, Computer Vision, High-Precision Optical Triangulation Laser, Accelerometer to measure mechanical and vibration characteristics of large-format Optical Tables including flatness +/- 0.0005" over a 12' x 6' area.
 - Managed Solid Works model and directed machine upgrades.
 - Experience tuning encoders and linear actuators for zero-backlash, installing and leveling precision measurement equipment.
 - Created Process Control Dashboard to analyze flatness data, vibration characteristics test, hole compliance information of individual tables and bin data to assess process capability and repeatability of production.
 - Second Named Inventor, US patent application number: 17101836, Patent Pending
- Experience in Six-Sigma and lean Manufacturing practices including Kaizen, One-Piece Flow, Just-In-Time Manufacturing, Pareto Analysis
- Experience conducting article-review and managing outsourcing projects.
- Managed VA/VE funnel for process and material savings projects totaling \$200K annually.
- Mechanical Design Experience:
 - Experienced Hand Machining with Bridgeport CNC Mills, CNC Lathes.
 - Professional Certificate in SolidWorks with years of experience in CAD design.
 - Large Weldment and Mechanical Assembly Design Projects.
 - Precision Machining drawing experience with Surface Finish, GD&T, Precision Tolerancing, Tolerance Stack Analysis.

Production Manager – Active Products (January 2022-January 2023)

- Managed Electro-Mechanical Assembly and Final Test operations for Active Products Division of TMC
 - Managed team of 17 electro-mechanical assemblers and technicians.
 - Increased revenue by 50% year-over-year
 - Built custom scripts to manage production planning, purchasing, and coordination of production.
 - Scripts were used as an integral piece of daily operations for operations administrators such as planners and buyers.
 - Trained new operations administrators on ERP system.
 - Implemented multiple Kaizen events to increase efficiency and throughput.
 - Implemented quality systems, reducing returns by 15% year-over-year.
 - Standardized in-process quality checks.
 - Created trouble-shooting database for failure analysis and troubleshooting guidance.
 - Conducted safety programs to increase safety awareness and reduce workplace hazards.

SKILLS & INTERESTS

Computer: Microsoft Office Suite; Python; SQL; Linux; VB.NET; ; C++; MATLAB; SolidWorks; AutoCAD; AutoCAD Fusion 360 CAM

Fabrication: CNC Machining, Sheet Metal Punching & Air Bending, Welding, Water Jet and Laser Cutting, 3-D Printing

Interests: CNC Machining, Robotics, Digital Transformation for Manufacturing (Industry 4.0), Shop Floor IoT, Additive Manufacturing, Coding

Hobbies: Hiking, Skiing, Road-Trips, Guitar, Reading, CNC Machining, Machine Building