Terrence A. Southern

107 Cimarron Trail, #1074, Irving, TX 75063 ▪ (313) 468-2585 ▪ terrence.a.southern@gmail.com

PROFESSIONAL SUMMARY

An experienced engineeering continuous improvement & program manager, specializing in effectively leading cross-functional teams through mechatronic system development, analyzing requirements, managing schedule and budget constraints, coordinating full lifecycle projects, resolving program barriers and risks, with varied knowledge across a range of documentation, driving continuous improvements, training teams and facilitating team problem solving activities. Track record of applying innovative approaches to process controls, product launches, lean manufacturing and budget cost savings. Hands-on highly motivated leader & mentor with strong verbal & written communication skills and an excellent presenter. Results oriented leader with a reputation for meeting or exceeding 100% of goals each year and being an agent of change.

CORE COMPETENCIES

- Continuous Improvement Management
- Research and Business Development
- Capital project management and coordination
- Effective Negotiating skills
- Team building and communication skills
- Lean manufacturing Tools Execution
- Strategic planning and task delegation
- Executing Six Sigma practices
- Complex problem solving and troubleshooting
- Employee management and vendor oversight
- Budget management and cost reductions
- Cross-functional team leadership
- Robotics & Automation Management
- Interfacting with multiple teams

PROFESSIONAL EXPERIENCE

GE Transportation

Robotics & Automation Engineer Sept 2014 – Present

- Consult GE Transportation Business Leaders on the development of automation within each facility to reduce labor, improve safety and increase productivity with use of the robotics, cnc and other automated technology
- Developed automation strategy to save over $10M per year across all GE Transportation manufacturing operations
- Conduct high level research and development of new & innovative manufacturing technology to be used for GE operations while also seeking industry best practices
- Maintain and sustain manufacturing operator talent through training and workshop in robotics, welding, etc
- Build partnerships and qualify industry experts/system integrators to work with GE Transportation to successfully deploy innovative automation technology

Challenge Manufacturing

Welding Engineer Nov 2013 – Sept 2014

- Manage automated weld system development, weld destruct and facilitate training to maintenance team
- Maximize operations equipment, process improvements, implement error proofing system (poka yoke)
- Monitor operations inefficiencies to achieve a $500k savings by increasing system output, improving labor and maximizing floor space through continuous improvement
- Work with quality team to ensure goals are achieved on vehicle weld locations, metal thickness and electric current accuracy meets 98% or better

Tri-State Automation, Hammond, IN

Automation Division Aug 2013 - Nov 2013

General Manager

- Lead automation system development, program management and sales to manufacturing customers while managing a team of 8 employees to successfully deploy an innovative automated system in to the field and the plant daily operations
- Facilitate and implement all facility Lean tool initiatives KPI, Kaizen, Bottleneck Analysis, Root Cause Analysis, 5S, Standard Work opportunities to increase operations process efficiency, operator ergonomics resulting in $150K savings, improvement of 15% more floor space availability and 65% increased throughput improvement & 50% operation motion reduction
- Ensuring all integrated systems comply with industry safety standards (OSHA, ANSI/RIA) prior to shipping
- Review & approve all system proposals, supplier invoices and contractor bids/proposals which resulted in $500K in awarded projects over a 90 day period
- Manage all P&L automation budget and division strategic plan to triple company profit by 2015
- Leads problem-solving efforts to improve quality and eliminate waste/cost of poor performance

PepsiCo Inc, Plano, TX
Supply Chain Innovation May 2010 - March 2013
Senior Project Manager
Highlight: Keynote speaker at the 2012 Robotic Industries Association Conference addressing "Accelerating Flexibility and Agility in Robotics" which created a pipeline of OEM resources for Frito-Lay projects

- Lead research & development and management of case packaging, robotic palletizing and warehouse material handling pilot systems for deployment to all North American facilities resulting in a $200 million savings per year
- Lead engineer for machine vision system to eliminate defective warehouse materials (cases, pallets, etc.) which projected a cost savings of approximately $7 million per year across 37 facilities
- Work with managers and engineers to drive and promote understanding of PDCA, SDCA tools and principals to ensure the delivery of business objectives and a culture of continuous improvement
- Develop cost analysis studies, system specifications, systems & safety standards and request of proposals
- Conduct technical discussions & negotiations with suppliers to ensure competitive cost of provided solutions

General Motors Corporation, Warren, MI Jun 2003 – May 2010
Manufacturing Assembly and Automation Center (MAAC) and May 1999 – Aug 2002

Senior Robotics Manufacturing Engineer, April 2008 - May 2010
Highlight: Generated $3.5 million in savings by identifying reuse opportunities for robotics and dispense equipment.

- Managed and tracked $16 million budget, 2 direct salary employees and 12 contractors while executing project cost savings, continuous improvement and business development
- Executed the Scope, Plan, Design, Integration and Installation phases for 415 robots and 49 dispense systems. Research, develop, test and validate innovative applications to ensure efficient processing in 3 facilities.
- Monitored, trained, challenged and reviewed technicians tasked with development of a system troubleshooting of robotics, welding and controls equipment. This required regular, detailed and customized feedback, extensively using FMEA and Functional Analysis
- Successfully developed cooperative welding process resulting in $50k savings per welding station
- Developed strategic proposals and successfully gained approval for all capital project over $5M

Robotics Manufacturing Engineer, May 2004 - April 2008
Highlight: Saved the project $2.4 million dollars by developing a business case to reuse 105 KUKA robots

- Cross functional/Cross discipline assignment as lead controls/robotics/welding engineer for the 2009 Hummer H3T
- Successfully ensured all launch initiatives exceeded expectations with zero issues while meeting all quality performance metrics
- Coordinate improvement activity through effective project management and involvement of appropriate parties
- Execute Value Stream Mapping practices to lead Mean Time Between Failure (MTBF) & Mean Time to Repair (MTTR) improvements for department enabling reduction in crew sizes for all shifts and lines
- Review engineering principles, processes, applications, simulation with external vendors and consultants

Robotics Associate Engineer, June 2003 - May 2004
Highlight: Assigned as Lead Robotics Engineer for the Hummer H3, performing the role of a 7th Level Engineer

- Managed a $9 million budget including 11 contract employees, 184 robots and generated $800K in savings for the overall project resulting in a successful launch meeting acceleration 26 days earlier than scheduled
- Define project scope, goals and deliverables that support business goals of the company stakeholders
- Developed software to automatically extract program information from all robots to simplified tracking and Operation management to ensure efficient functionality and safety of equipment performance

EDUCATION AND CERTIFICATIONS

Bachelor of Science in Computer Science - Tennessee State University (2003)
Information Technology Management Certified Professional - Learning Tree International (2007)
Project Management Professional Training - SkillSoft USA (2011)
Six Sigma Green Belt Certification (2015)

TECHNOLOGICAL PROFICIENCIES

Robotics: Programming and Troubleshooting of KUKA,Fanuc,Motoman,Adept,Nachi,Kawasaki and ABB Robots
Welding: Resistance Welding, Gas Metal Arc Welding, Laser Welding
Machine Vision: Cognex, ISRA, LMI, SICK, Dalsa, Perceptron
Controls: Rockwell/Allen-Bradley (RSLogics 5000), Yaskawa (PLC Progic), Siemens (Step 7)
Software: MS Office Suite, Visio, Project, SharePoint, AutoCAD, Solid Works, Inventor
Programming Languages: HTML, C++, Java Script, Java, ASP.Net, Python

PROFESSIONAL AWARDS AND PUBLICATIONS

2015 Dallas Business Journal - "**Dallas 40 Under 40 Award**" Honor
Feb. 2012 - Control Engineering published article **"Robotics at Frito-Lay: Flexibility, Adaptability Needed,"**
2012 BEYA - **Most Promising Engineer Award** recipient
2009 Engineering Society of Detroit Gold Awards - **Excellence In Leadership** Award recipient
2008 FIRST LEGO League (LEGO Fever 1) - **Adult Coach Mentor Award** recipient
2007 BEYA - **Modern Day Technology Leader Award** recipient

PROFESSIONAL AFFILIATIONS AND COMMUNITY INVOLVEMENT

- Illuminate STEM, Chair, 2012-Present
- NSBE Region IV, Chair, 2015-Present
- Robotics Industries Association (RIA), Member, 2010-Present
- IEEE, Member, 2012-Present
- Project Management Institute (PMI), Member, 2011-Present