Michael P. Lanza
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Professional Engineer with 7 years of experience constructing insights from data rich environments to drive business and engineering solutions. Possesses advanced knowledge in the areas of statistics, mathematics, analytics, and engineering. Adept at complex problem solving with a passion for programming, Data Science, and Data Analytics.

Education:

Drexel University — Philadelphia, PA
MS in Mechanical Engineering — Graduated June 2012

GPA: 3.41

Related Courses: Applied Engineering Analytical Methods, Probability & Statistics, Numerical Analysis, Robust Control Systems, Automated Cars, Advanced Dynamics, Engineering Reliability, Engineering Economic Analysis, Engineering Management

Relevant Software, Courses/Certifications, and Projects:

Software: R, Python, MySQL, GNU Octave, MATLAB, Maple, VBA for Excel, Microsoft Office Enterprise, Agilent Vee, LabVIEW, Visual Basic Express

Courses/Certifications: Datacamp's Data Scientist with R Track, Datacamp's Data Scientist with Python Track, Microsoft Professional Program for Data Science, UC San Diego's Data Science MicroMasters Program, Stanford University's Machine Learning

Projects: Performed exploratory data analyses, cleaned data, generated new features, and trained and tested various machine learning algorithms on the datasets provided by Kaggle competitions, specifically Digit Recognizer, Titanic Machine Learning from Disaster, and Instacart Market Basket Analysis utilizing Python and R.

Employment Experience:

Troemner — Thorofare, NJ
Product Design Engineer — September 2016-Present

- Project manager for new laboratory equipment and medical devices in development (Released latest product line 2 months ahead of schedule).
- Responsible for timeline management, product and component design optimization, cost analysis, vendor selection, performance and safety testing, regulatory approval, product manufacturability, and release to market.
- Develop test protocols and perform data analysis utilizing Python and the Pandas, Numpy, and Matplotlib packages to validate material usage in new product design.
- Liaison to the global business division responsible for RMA root cause analysis and resolution in addition to product portfolio expansion in global markets.

Troemner — Thorofare, NJ
Manufacturing Engineer — July 2015-September 2016

- Drove assembly process improvements through statistical analysis of production and return data based on Lean/Six Sigma principles using Excel and Python with the Pandas, Numpy, Matplotlib, and Scikit-learn packages.
- Developed custom software, reports, and dashboards using VBA, Excel, MySQL, and Python to improve the capture and analysis of assembly data in real-time (Automated reporting process and reduced generation time from 2 days to 10 minutes).
- Resolved in-process production failures as they occurred to identify key areas for improvement (Reduced Block Heater build time by 25%).
- Lead Monthly Quality Meetings and implemented action items to improve production efficiency based on custom insights and production KPI's.
- Analyzed all future and current product design changes to provide alternate solutions and improve manufacturability.
- Managed, developed, and implemented a company-wide Non-Conforming Material Process to identify top scrap contributors based on volume and value (Reduced Scrap Material by 10%, $200,000).

Rieker Inc. Aston, PA

Manufacturing Engineer February 2013-July 2015

- Managed all production lines and met KPI goals on a weekly and monthly basis.
- Resolved production issues through research and statistical analysis of historical test data by implementing solutions to prevent future occurrences (Improved production yield by 40%).
- Developed custom software utilizing Excel, VBA, MySQL, Navicat, and .NET to record and analyze production data through the generation of summary reports and dashboards.
- Increased production output, reduced testing time, and reduced material scrap using time studies and other Lean/Six Sigma production practices (Reduced calibration and validation time by 20%).
- Generated detailed flow charts and written procedures to visualize and document production processes.

HighPoint Solutions East Norriton, PA

IT Consultant July 2012- February 2013

- Provided support and development for the Trackwise and Master Control software suites at various healthcare and pharmaceutical client sites.
- Developed detailed documentation including process flow charts and test scripts to illustrate document life cycles and validate software.

PECO Warminster, PA

Reliability Engineer March 2011-September 2011

- Identified reliability concerns in Top Priority Circuits through the analysis of historical data and generated work orders to improve circuit performance and prevent reoccurring outages.
- Created the company-wide Pole Hit Program to identify telephone poles out of compliance and strategically relocate them to reduce the occurrence of pole hits.
- Managed an underground cable database to monitor current and future cable upgrades.
- Performed customer callbacks during major outages and analyzed outage history for potential reliability concerns.

Kulicke & Soffa Industries Fort Washington, PA

Mechanical Engineer March 2010-September 2010

- Supported the research and design of ultrasonic transducers in wire bonding machines.
- Developed custom software to automatically perform testing and generate reports utilizing VBA (Software reduced run-time from 2 hours to 2 minutes).
- Created user manuals and additional documentation for all programs developed and instruments used in testing.