

# MICHAEL P. LANZA

## **OBJECTIVE**

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, 2012 Philadelphia, PA

M.S. Mechanical Engineering

#### CONTACT



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## **SKILLS**

**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:** Kaggle Digit Recognizer, Kaggle Titanic Machine Learning from Disaster, Instacart Market Basket Analysis.

## LINKS







kaggle / lanzman

# **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

Product Design 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 2013-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.