

MICHAEL DEWITT

Winston Salem, NC

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EXPERIENCE

Cone Health

Data Scientist - Intermediate

August 2019 - Current

Greensboro, NC

- Joined the Enterprise Analytics Data Science team at one of the largest providers in the region.

Wake Forest University

Data Scientist

October 2017 - August 2019

Winston Salem, NC

- Working in the Office of Institutional Research performing descriptive, predictive, and prescriptive analyses on a variety of topics from student outcomes analysis and observational experiment analysis to student retention prediction.
- Completed a predictive student retention risk model that highlights each student's risk of leaving the university using statistical machine learning techniques.
- Developed an "early warning" report to provide to the Office of Academic Affairs with students who are in a high risk category for early intervention based on data insights.
- Created an automatic data collection tool that combines various data from around campus and open source information into a centralised data store for further analysis.
- Conduct training on statistical topics, statistical programming, and data visualization techniques as part of the University wide "Business Intelligence and Analytics" team.
- Conduct survey analysis on university wide surveys which includes post-stratification and MRP.
- Serve as an internal consultant for programming and R related issues including developing an R packages to facilitate analysis and report writing.
- Provide ad hoc analysis and reporting to administration as needed.

Michelin North America

Central Industrial Engineer

May 2013 - October 2017

Greenville, SC

- Document and facilitate best practice sharing among all North American facilities and international locations. Coach plant staff and industrial engineers in the 10 manufacturing facilities.
- Identified and led prototype project to reduce the need to invest in new equipment through low cost machine modifications resulting in the savings of 2.3 million dollars.
- Used Monte Carlo simulation techniques in R to demonstrate a machine automation change could avoid 2 million dollars in losses per year.
- Developed an R package and Shiny App to model impact of new tire lines on industrial results.
- Developed an optimization algorithm which led to the development of a patented process.
- Provide studies and impact analysis on new product evolutions including capacity, value steam mapping, sensitivity analysis, flow and storage impact including recommendation of new processing equipment to the global steering team.
- Lead the Best Practice Sharing Network which identifies and documents best practices and shares them with the different manufacturing facilities.
- Viewed as a reference on information systems, data visualization, analysis and business intelligence for manufacturing. Includes working to start a data science for manufacturing team and providing training to users on tools, analysis, and statistics.

Michelin North America

Industrial Engineer

May 2010 - May 2013

Columbia, SC

- Continuous Improvement Engineer for a shop of 163 operations employees, 15 maintenance technicians and 24 contractors in 4 separate business units with 22 individual machines. Responsible for determining capacities, staffing, guiding continuous improvement efforts and leading the annual business planning process.
- Implemented a plant-wide automated kanban system from curing through assembly and extrusion to create a pull system to the plant bottleneck.
- Developed dashboards and analysis tools to support use of the kanban tool company-wide.
- Developed a loading model using existing information systems that provides an eight week forecast (previously 1 week) of demand for the preparation shop allowing for capacity and flexibility planning.
- Facilitated and led multiple kaizen events to improve productivity in the workshop.

Michelin North America

May 2007 - Aug 2009

Continuous Improvement Intern

Columbia, SC

- Planned and facilitated four one week 5S organization events for cross functional teams of 10-12 people from various disciplines.
- Created plant-wide safety indicator, tracking system, and automated report generation, resulting in the current plant safety reporting system. Included development of 2 year deployment road map for 5S program.
- Two Summers as continuous improvement intern, implementing Michelins Continuous Improvement System.

EDUCATION

Clemson University

2006-2010

B.S. in Chemical Engineering

Minor in Philosophy

North Carolina State University

2015-2017

Post Baccalaureate Studies (*non-degree*)

Operations Research, Industrial Engineering, Statistics

North Carolina State University

2017 - Dec 2019 (anticipated)

Masters in Statistics

Certificate in Data Science Foundations

QUALIFICATIONS AND TRAINING

Certifications

Engineer in Training #19393

Lean Six Sigma Greenbelt Clemson Center for Excellence in Quality

CITI Human Research for Social Sciences

Additional Training

Positive Management Leadership

Situational Leadership

AT Kearny's Lean Program

TECHNICAL STRENGTHS

Languages

Expert: R, SAS, L^AT_EX, Markdown,

Intermediate: French, Spanish, SQL, JAGS, Python, git, LINDO, VBA

Novice: Stan, C++

Visualization

MS Power BI, Microstrategies, Tableau, ggplot2