MICHAEL DEWITT

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EXPERIENCE

Wake Forest University October 2017 - Present
Data Scientist *Winston Salem, NC*

- Working in the Office of Institutional Research performing descriptive, predictive, and proscriptive 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.
- Created 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.
- Conduct training on statistical topics, statistical programming, and data visualization techniques as part of the University wide "Business Intelligence and Analytics" team.
- 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 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 May 2013 - October 2017
Central Industrial Engineer *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.
- Applied operations research principles to maximize consumption of reworked material.
- 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 May 2010 - May 2013
Industrial Engineer *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 Michelin's Continuous Improvement System.

EDUCATION

Clemson University *2006-2010*
B.S. in Chemical Engineering
Minor in Philosophy
Overall GPA: 3.30

North Carolina State University *2015-2017*
Post Baccurelauret Studies
Operations Research, Industrial Engineering, Statistics
Overall GPA: 3.60

North Carolina State University *August 2017 - Current*
Masters in Statistics
Certificate in Data Science Foundations
Overall GPA: 3.56

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, LaTeX, Markdown
	Intermediate: French, Spanish, SQL, JAGS, Python, git, LINDO, VBA
Visualization	MS Power BI, Microstrategies, Tableau, ggplot2