

# Nicholas J Morris

DATA SCIENTIST

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## Professional Summary

Experienced Scientific Programmer with a demonstrated history of working in the Computer Software industry. Skilled in Continuous Improvement, Machine Learning, and Optimization. Strong engineering professional with a Bachelor of Science and Master of Engineering in Industrial Engineering from Rochester Institute of Technology.

To work for a job where my analytical ability can facilitate contemporary solutions. In this job, computer mathematical models – optimization, machine learning, or statistical – will be constructed using the combined knowledge of data, people, and literature to describe key patterns and anticipate desired information.

*For various projects as well as links to the work itself, click on my name at the top to be brought to my LinkedIn.*

## Key Strengths

- Machine Learning in Python and R.
- Discrete Event Simulation in Simio.
- Optimization in Python and AMPL.
- Monte Carlo Simulation with Design of Experiments in Python, R, and Excel.
- Back-end Programming in Python. Familiar with SQL and Bash.
- Statistical Analysis in Python and R: *Summarizations, Hypothesis Testing, Distribution Identification, Confidence Intervals, Quality Control, Visualizations, Data Cleansing, Covariation/Distances, Transformations, Non-Black-Box Modeling.*

## Education

Undergraduate/Graduate Student

*Rochester Institute of Technology, Rochester NY, Aug-2011 – Nov-2018 (7 yr 4 mo)*

- Bachelor of Science in Industrial Engineering, Aug-2011 to May-2017, 3.46/4.00
- Master of Engineering in Industrial & Systems Engineering, Aug-2015 to May-2017, 4.00/4.00
- Doctor of Philosophy in Engineering (Uncompleted), Aug-2017 to Nov-2018, 3.06/4.00

## Work Experience

Data Analytics Engineer

*FacilityConneX, Nashua NH, Oct 2020 – Present (1 yr 4 mo +)*

- Back-end developer for continuous performance and reliability monitoring.
- Developed real time machine learning in Python for a data streaming platform.
- Developed real time analytics in Python on a data streaming platform.
- Code conversions from C# to Python.
- Developed time series dashboards.

Data Scientist

*Aspen Technology, Bedford MA, Mar 2019 – Jun 2020 (1 yr 4 mo)*

- Researched and constructed hybrid machine learning with first principles using Python and R.
- Developed the Python back-end engine for Hybrid Model Builder.
- Back-end developer of Python libraries for Hybrid AI Builder.
- Went to the 2020 East Open Data Science Conference to engage with the community.

## Researcher (Student)

*Rochester Institute of Technology, Rochester NY, Sep 2016 – Nov 2018 (2 yr 3 mo)*

- Presented vaccine research on global distribution optimization for the Bill & Melinda Gates Foundation at the 2017 INFORMS conference.
- Modeled budget uncertainty in the global vaccine market using R and AMPL.
- Developed a healthcare risk index of each country over time using machine learning in R.
- Reviewed vaccine literature using natural language processing in R.

## Data Scientist (Intern)

*Geisinger Health, Danville PA, Jun 2017 – Aug 2017 (3 mo)*

- Modeled the likelihood of a patient not donating to the MyCode program, which genetically predicts illness and disease, using machine learning in R.
- Modeled the distinguishing characteristics of bladder cancer patients using machine learning in R.

## Data Analyst (Intern)

*Geisinger Health, Danville PA, Jun 2016 – Aug 2016 (3 mo)*

- Made recommendations to executives of two neighboring hospitals on how to share their demand based on analysis of personal health records and doctor schedules in R and Teradata.
- Made recommendations to operations staff of a hospital on how to respond to changing occupancy levels based on time series analysis of personal health records in Excel and Teradata.

## Simulation Modeler (Student)

*Rochester Institute of Technology, Rochester NY, Nov 2015 – Mar 2016 (5 mo)*

- Developed a hierarchical discrete event simulation model of a manufacturing facility for the United States Department of Defense using Simio.

## Product Management Analyst (Intern)

*Mercury Systems, Chelmsford MA, Jun 2015 – Aug 2015 (3 mo)*

- Developed a system of Excel spreadsheets to automate the pricing of new products.
- Developed a model for the price range of new products using machine learning in R.

## Continuous Improvement Engineer (Intern)

*JMA Wireless, Liverpool NY, Jun 2014 – Jan 2015 (8 mo)*

- Provided time series analysis of safety, quality, delivery, and cost for multiple manufacturing cells.
- Ran time studies on multiple manufacturing cells. Designed and machined a system for line balancing the manufacturing cells. Developed an Excel spreadsheet for redesigning the line balancing system.
- Measured the floor layouts of multiple manufacturing cells. Redesigned inventory and machine locations using AutoCAD and tape.
- Ran repeatability and reproducibility analysis on multiple workstations using Excel and Minitab.