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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, Optimization. Strong engineering professional with a Bachelor of Science and Master of Engineering in Industrial Engineering from Rochester Institute of Technology.

Searching for a job where my analytical skills can be a part of contemporary solutions. In this job, computer mathematical models would be built with knowledge from data, people, and literature to describe/predict key information.

# Key Strengths

 Machine Learning in Python • Optimization in Python

Back-end Programming

Machine Learning in R

Optimization in AMPL

Continuous Improvement

• Familiar with SQL

Familiar with Docker

Design of Experiments

### 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 Scientist

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

- Researched and designed hybrid modeling with fluid mechanics using R and Python
- 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 ODSC to engage with the data science community

#### Researcher (Student)

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

- Presented vaccine research 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 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 the 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 rates, 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