

EXPERIENCE

Research Assistant **Lehigh University** **Sep 2015 – Mar 2017**

PRAISys Platform

- Implemented dynamic programming algorithm in MATLAB to optimize the scheduling strategy of transportation network recovery.
- Built models that capture uncertainty in initial damages and recovery speed.

Consultant - Data Analyst **CES** **Jul 2014 – May 2015**

Energy Storage Dispatch Optimization

- Developed a Markov Decision Process to minimize loss of energy, which resulted in a 20% decrease in inventory cost.
- Devised hourly plans of dispatching energy from battery storage to maximize profit.

Manufacture Engineer **Avery Dennison** **Jan 2015 – May 2015**

Operations Optimization

- Reduced operating cost by developing system to monitor movements of forklifts and workers.
- Conducted time studies using ARENA that led to an annual saving of \$165,000.

Consultant - Data Analyst **Madison Electric Department** **Feb 2014 – Jun 2014**

Energy Consumption Forecasting

- Developed optimal purchase strategy which resulted in a 10% increase in annual profit.
- Redesigned forecasting model on daily energy consumption and electricity distributing cost.

EDUCATION

Bethlehem, PA **Lehigh University** **Aug 2011 – May 2017**

- M.Eng. in Industrial and Systems Engineering, Expected May 2017. GPA: 3.4
- B.S. in Industrial Engineering, May 2015. In-major GPA: 3.6.
- Graduate Coursework: Convex/Non-convex Optimization, Integer Programming
- Undergraduate Coursework: Stochastic Optimization, Supply Chain Theory, Inventory Theory

TECHNICAL PROJECTS

- **Data Mining - Crime Analysis** (2016): Implemented k-means algorithm in Python for location clustering to find crime density in different areas; analyzed association rules between crime frequency and descriptive features.
- **Machine Learning - Spam Detection** (2016): Implemented stochastic gradient-based algorithms in C++ for logistic regression to detect spam emails.

Languages and Technologies

- MATLAB, C++, Java, Python, SQL, JavaScript
- AMPL, SAS, ARENA