

# Jason Shiverick

## Lead Data Scientist and Data Engineer

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### Tech Stack

Spark, Python, Docker, Ansible, Git, SQL / NoSQL, Statistical Modeling, Machine Learning, AWS

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### Experience

#### **Tesla Motors** *Associate Manager, Data Science / Reliability* **2015 to Present**

- Developed Ansible/Docker deployment architecture for a Spark standalone cluster and python libraries for efficient manipulation and processing of log data.
- Established an analytics workflow leveraging git version control, with jira integrations. Designed the ETL workflow using spark, airflow, jupyter and superset.
- Provided direction on proactive maintenance campaign and prognostics algorithm development using machine learning techniques: *random forest, logistic regression, physics of failure*.

#### **Tesla Motors** *Senior Data Scientist* **2014 to 2015**

- Established an extensive code base that provides tools to the organization for extracting, transforming, and analyzing field data at scale.
- Developed a modern approach to advanced warranty simulation in Python that can account for competing failure modes in a repairable system under varying use conditions.

#### **Tesla Motors** *Reliability Data Scientist* **2013 to 2014**

- Developed statistical frame work for python: *Weibull analysis, Stress-Strength Convolution, Hypothesis testing, Best fit solver, generalized distribution framework, newton-raphson solver, ranking methods, mttf*

#### **Ingersoll Rand** *Reliability Engineer* **2011 to 2013**

#### **Medtronic INC.** *Product Performance Specialist* **2010 to 2011**

#### **Boeing Corporation** *Systems Engineer* **2008 to 2009**

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### Education

**Graduate Course Work (Reliability Engineering) 2012 to 2013** University of Maryland (online) College Park, Maryland  
*ENRE 602: Reliability Analysis ENRE 655: Advanced Methods in Reliability Modeling*

**Bachelors of Science in Aerospace Engineering 2004 to 2008** Iowa State University Ames, Iowa

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### Invited Talks

**PHM Socioty 2015** automotive panel discussion

**ARS 2014** Big Data in Reliability: 1st Place