JASON SHIVERICK

LEAD DATA SCIENTIST AND RELIABILITY ENGINEER

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Technical

Python (pandas, numpy, scipy, scikit-learn, ipython)	Reliability (Weibull, Bayes, ect...)	SQL / NoSQL
Linux	Bash	Git
	Spark	

Experience

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

Grew the Data Science team and capacity within the organization. Evangelized the need for data and infrastructure to facilitate data driven decision making.

Provided direction on proactive maintenance campaign and prognostics algorithm development using machine learning techniques: *random forest, logistic regression, physics of failure.*

Established a new lean communication and visualization paradigm leveraging markdown, plotly, and domino.

Tesla Motors *Senior Data Scientist* **2014 to 2015**
Innovated in the approach to Reliability Engineering by incorporating the tools of Data Science.

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 *Reliabilty Data Scientist* **2013 to 2014**
Developed the tools required for analyzing fleet logs at scale, and characterizing usage conditions.

Developed methods to automate Weibull analysis for all parts of the vehicle. Built a statistically defined generation identifier for failure modes.

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**
Drove product reliability and provided reliability metrics to upper management.

Medtronic INC. *Product Performance Specialist* **2010 to 2011**
Contracted through Development Resource Group to provide product quality assurance support for the neuromodulation division.

Boeing Corporation *Systems Engineer* **2008 to 2009**
Contracted as a Systems Engineer through Barrios Technology to support Electrical Power System analysis for the International Space Station.

Projects

Turntable
pythonhosted.org/turntable/
Functional framework for multiprocessing pandas DataFrames in python.

Stencil
Template for structuring new packages in python.

Reliability Simulation Framework
Monte-Carlo Competing failure mode simulation designed for repairable system forecasting.

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

Invited Talks

PHM Socioty 2015 automotive panel discussion

ARS 2014
Big Data in Reliability: 1st Place

Hobbies

Surfing

Climbing