RYAN S. BAE

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Data scientist with strong interest in applied machine learning/deep learning to build analytics/ML infrastructure and improve products. Areas of interest include:

- Data Science/Applied Machine Learning and Deep Learning
- Data and Feature Engineering
- Regression/Classification/Clustering/Topic Modeling
- A/B Testing and Experimental Design

Education:

University of Washington at Seattle – M.S Data Science *2017 – 2019 Expected*

- Data Science Merit & Opportunity Scholarship Recipient

University of Michigan at Ann Arbor – M.S.E. Aerospace Engineering *2012 – 2014*
University of California at Los Angeles – *B.S. Aerospace Engineering* *2007 – 2012*

Technical Suite:

Programming:	Data Visualization:	Deep Learning:	Big Data/Cloud:
Python, R, SQL	Tableau, matplotlib, ggplot	caffe/caffe2, Tensorflow	Azure, AWS (EC2, Redshift)

Professional Experience:

Microsoft (Data Scientist Intern) *Jun 2018 – Aug 2018*

- Successfully built data pipeline in SQL/C# calculating net promoter score of Windows pre-release builds from Windows Insiders feedback.
- Identified Windows quality metrics most associated with detractors using interpretive random forest/logistic regression models in Python.
- Discovered uncommon bugs/issues for Windows 10 pre-release builds by various applied machine-learning methods (LDA, k-means, and PCA).
- Drove future direction of Windows Insider program by recommending changes to the net promoter question based on results found above.

Clobotics (Machine Learning Engineer Intern) *Nov 2017 – May 2018*

- Implemented parts of a computer vision paper to detect blurriness of retail images in Python. Forward propagation coded from scratch using Python numpy library.
- Compared image segmentation performance between Clobotics' current CNN with Facebook's Detectron architecture using caffe and caffe2.

Space Systems/Loral (Propulsion Development/Analysis Engineer) *Sep 2014 – Feb 2017*

- Modeled chemical reaction to predict flow decay in spacecraft propulsion system using Python and MATLAB, eliminated propellant waste by $100K per spacecraft. Earned company award.
- Calculated thermal and dynamic effects of rocket plume on spacecraft body computationally using NASA Monte Carlo simulation code in MATLAB, drove design of the thermal system for 4 satellites.

Relevant Projects:

News Article Recommender *Mar 2018 – Jun 2018*

- Designed the architecture and led team of data scientists to build a news articles recommender and sentiment analyzer tool. Built LDA topic models to perform topic modeling and tagging on 120,000 news articles using Python.

UFO Sightings Dashboard/Visualization *Oct 2017 – Dec 2017*

- Performed data engineering and cleaning using pandas on 80000+ UFO sightings around the world, built visualizations using Tableau and Python and hosted on a website.

Certificates/Specializations

- *Deep Learning, a 5-course specialization by Stanford University on Coursera (Dec 2017)*
- *Big Data, a 6-course specialization by University of California at San Diego on Coursera (Sep 2017)*
- *Machine Learning, a 4-course specialization by University of Washington on Coursera (June 2017)*