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. Expected to graduate March 2019.

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

Education:

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

- 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

Professional Experience:

Microsoft (Data Science Intern) *Jun 2018 – August 2018*

- Built data pipelines using SCOPE to aggregate Windows Insiders feedbacks, engineered features, and created visualizations. Implemented various machine learning models (logistic regression, k-means, topic models, PCA) to obtain audience insights and drive product design and optimization.
- Analysis led to changing feedback trigger process to increase the volume of feedbacks.

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) *2014 – 2017*

- Modeled chemical reaction to predict flow decay in spacecraft propulsion system, eliminated propellant waste by $100K per spacecraft. Earned company award. (Python)
- 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

- 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. (Spring 2018)

Water Savings Calculator

- Incite Water: Data scientist for MBA project, scraped data and wrote pseudo-code for web-based tool to calculate water and cost savings from using water efficient appliances. (Winter 2018)

UFO Sightings Dashboard/Visualization

- 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. (Fall 2017)

Certificates/Specializations

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