BRANDON GUO

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Objective
To pursue an opportunity to work with data, both computationally and theoretically in a meaningful manner, whilst attaining valuable insights regarding the developments and trends of statistics and data science in a professional setting.

Education
Monta Vista High School, Junior, Unweighted GPA: 4.00; American College Testing: 36/36 (top .1%)

Relevant Coursework: AP Physics 1, AP Physics C, AP Calculus BC, AP Computer Science A, AP Statistics, Johns Hopkins Data Science Specialization, Stanford Machine Learning, Linear Algebra

Books I've read: Python for R Users: A Data Science Approach (Ohri), Quantitative Finance in R (Georgakopoulos), Machine Learning Yearning (Ng), Machine Learning: A Probabilistic Perspective (Murphy et. al) Books I am reading: Elements of Statistical Learning (Freidman et. al), Derivative Analytics with Python (Hilpisch)

Related Experience
Internship at University of Pittsburgh 7/18-10/18
Researched in a professional research lab in the U. Pitt Montefiore Hospital. Conducted modern biological lab research to study the cause of pulmonary fibrosis. Performed biostatistics on the accumulated data, using packages in R as well as deep learning models in Python, to draw conclusions from data. Author of professional research article with statistical findings, which is currently undergoing publication process in NCBI, the largest medical newspaper in the country. Additionally, author of personal research paper investigating IPF detection with deep learning.

Research Project at San Jose State University 9/18-1/19
Working with Professor Guangliang Chen of San Jose State University in the Statistics Department on a project related to reducing the dimensions for a machine learning algorithm. Theorized the efficacy of many well-known reduction algorithms, as well as certain novel ideas in academia. Working on a paper that reviews the theory of these algorithms and analyzes them for their efficiency in practice.

Publications
Generating Predictive Models of Early IPF Detection via Deep Learning: Published 12/18, National High School Journal of Science

Theoretical and Computational Analysis of Novel Dimensionality Reduction Algorithms in Data Mining: Semifinalist Prize from JSHS.

Honors
United States Physics Olympiad Semifinalist (Top 400); American Mathematics Competition Distinguished Honor Roll (Top 1% Nationally); 3-Time AIME Qualifier (Top 2.5% Nationally); Modeling the Future Challenge Semi-Finalist SCU Debate Tournament Varsity Octafinalist; Berkeley Model UN Conference: First in the State; Model UN National Qualifier: 2017.

Activities
President of Silicon Valley Forensics Debate Club, Director of Training of Monta Vista Model UN Team, Director of Operations of Monta Vista Math and Science Club, Percussionist of San Jose Youth Orchestra; Other Interests: Cycling, Piano, Reading