

Ben Fuqua

Personal Background

I have taken CS 450 and CSE 350 but I haven't taken MATH 425 and MATH 488, I plan on taking these courses in Spring and Winter Semesters respectively. I am wanting to go into Data Science as my career, I already have been working as a data scientist at a company now for about 9-10 months. My byui email is fuq17002@byui.edu.

Project Background

For my senior project I am wanting to research outlier/anomaly detection methods and transformations. I have always been curious about these two topics but BYU does not have classes that address these topics to sufficient detail. I have already found some good research papers and technical documentation that explains how they work. I will also want to work with my professor to better understand the math behind these two topics and why they work. I have data from my company, which is full of outliers, on which I can run these methods to see the before and after.

Domain to Investigate

My topic really isn't domain specific, outlier detection and transformations are methods and theories that are applied to any type of data in any domain.

Proposed Deliverables

I wish to have a deep understanding of outlier detection methods so I could write a paper on the various methods used and what they look like before and after. One specific deliverable I would like to provide is a decent course outline so the research and examples I find/use while doing this project could be used as a course in the future to help other students understand this topic and benefit from my work.

Faculty Request

Brother Johnson would be the first teacher I would want to work with due to his statistical background and PHD

Brother Palmer would be the next teacher I would want to work with, I have had him in previous semesters and enjoy working with him.