

## **Application Essay: Interest in Data Science and Society**

I am interested in Data Science and Society because I am curious about how data can help us understand people and how society works. Today, we collect a huge amount of information every day, and data science helps us make sense of it. These tools are powerful for finding patterns and insights that we might not see on our own. But understanding society is tricky, and data science can't explain everything, especially since human behavior is complex and influenced by many factors.

One big challenge in understanding society is that people's decisions are shaped by emotions, culture, history, and personal experiences. Data science can show us trends, but it often misses the deeper reasons behind people's actions. For example, data might show us voting patterns, but it won't explain the personal or cultural reasons for those choices. To understand these details, we need more than just data—we need insights from fields like psychology or sociology.

Quantitative methods, which use math, computers, and data analysis, are important for making sense of big datasets. These tools help us quickly analyze information and find patterns that are hard to spot otherwise. In areas like healthcare, marketing, or city planning, these methods help us make better decisions. However, while these tools are great for large-scale analysis, they can't explain everything about human experiences.

For example, data science can show us trends in the housing market, but it can't fully explain why certain groups of people face housing issues. A data analysis might focus on things like income or housing prices but miss important issues like discrimination or inequality. These questions need a different approach that looks at personal stories and experiences, something that data alone cannot show.

Another example is in mental health. Data science can show us patterns in mental health diagnoses, but it can't tell us about individual struggles or how people experience their conditions. Understanding mental health often requires interviews or other methods that dive deeper into emotions and personal stories—things numbers can't capture.

In conclusion, data science is a key tool for understanding society. It helps us make sense of large amounts of information and find important trends. But to fully understand human behavior and social problems, we need to combine data science with qualitative methods. By using both, we can better understand the big picture and individual experiences. This combination of data and human stories excites me about Data Science and Society and makes me believe it can help solve social problems.

Thank you

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