Data science is one of the fastest growing professions in the technology industry today. But what is data science? The answer is more difficult than it seems. Data scientists use statistics, software development, engineering, management, and science to answer difficult questions for human problems. As the name implies, they approach data with a scientific mindset to formulate hypotheses, perform various testing, and ultimately, provide conclusions. In this paper, I will analyze two TedX talks about the profession of data science. The first is *Demystifying Data Science* by Mr. Asitang Mishra, and the second is *Data science for the environment* by Dan Hammer. These insightful presentations discuss the common job responsibilities of data scientists and illustrate how this field is impactful today.

In his talk, *Demystifying Data Science,* Asitang Mishra (who is a Data Scientist at the world-famous NASA Jet Propulsion Laboratory) uncovers what it the term "data science" means. For those unfamiliar with the term, it can seem like a daunting and confusing profession, but it is superficially so. Rather than providing the audience with a concrete definition of data science, Asitang Mishra gives working definitions what data scientists do. "A data scientist is a unicorn that bridges math, algorithms, experimental design, engineering chops, communication and management skills" by Roger Huang was one of them, with an important clarification at the end of the quote, "but they aren't specialists in every aspect." At the core of this growing field is the deployment of algorithms on datasets to produce predictions or results. This process contains various stages in no particular order: data analysis, automation, and predictive modeling. But besides the more technical aspects, data scientists have other responsibilities as well that they are responsible for. Effective communication is paramount as they must articulate complex findings and insights to diverse audiences, including non-technical stakeholders. Collaboration skills are equally crucial, as data scientists often work in interdisciplinary teams, requiring them to

navigate different perspectives and integrate various expertise. Adaptability is another key attribute which demands data scientists to learn continuously and have the ability to pivot in response to new challenges and technologies. Asitang Mishra concludes his talk by highlighting the growth of data science, and how important this field will be for years to come.

Dan Hammer provides real-life, practical examples of how data science is applied. In his experience, he helped preserving the environment by using data science and satellite imagery to monitor and protect forests all around the globe (TED, 2018). By analyzing vast amounts of data collected from satellites, Hammer and his team were able to detect changes in forest cover, identify areas at risk of deforestation, and implement targeted conservation efforts. This application of data science not only demonstrates its potential to address pressing environmental challenges but also underscores its capacity to drive positive change on a global scale. Data science's transformative impact spans across diverse sectors, shaping industries, informing decisions, and addressing global challenges. I find it a deeply compelling field and hope to someday hold work experiences in that position.

References

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TED. (2019). *Demystifying Data Science* | *Mr.Asitang Mishra* | *TEDxOakLawn* [Video] Youtube. https://www.youtube.com/watch?v=iJUzouXg5kY&t=557s