**DMIS Honours**

**MAD(A)**

**First Reflection**

2147105s

<https://github.com/markstrathie/2023_MAD_A>

Today, with rapidly mounting volumes of data being produced, more and more organisations are realising the advantage of collecting and analysing this data to help propel their business with accurate, data-driven decisions.[[1]](#footnote-1) There is currently a high demand for well-trained data scientists to work in this field – making the skill of data analysis very valuable today.[[2]](#footnote-2) While some believe the recent advancement in artificial intelligence (AI) has produced tools that negate some of this value, the solution is to incorporate these into current data analysis workflows to improve upon a foundation of technical skills.[[3]](#footnote-3)

**“Why you need to incorporate AI into your Data Analysis.”**

This first reflection will illustrate why my above topic is important to my target audience, what aspects of the topic will be highlighted to them, and finally how it will be developed from my current ideas into a final portfolio.

The web article *Is Data Scientist Still the Sexiest Job of the 21st Century?* emphasises why data analysis is important to my target audience of university leavers and young professionals seeking a career in the technology industry.[[4]](#footnote-4) It opens by discussing how significant the field of data science has been over the last 10 years, demonstrating it is not just a transient career. After discussions with my peers, I believe that my target audience will engage with material that will help them decide on a future-proof career path and learn relevant skills to achieve this.

A diagram of a science research of needs

Description automatically generated

*The Data Science Hierarchy of Needs*, shown above, displays the journey of data.[[5]](#footnote-5) I will use this pyramid structure to form the narrative of my portfolio content and final website. The topic of AI will be discussed towards the end, as it is shown at the top of the pyramid. *Will ChatGPT Put Data Analysts Out Of Work?* directly addresses the excitement and fear of this new technology, referring to one of the most popular AI software – ChatGPT.[[6]](#footnote-6) My portfolio will highlight this important topic to make it relevant to today’s current issues. The article explores techniques I plan to include showing how accessible AI tools are for new users and how it can help in tasks such as defining data structures.

My portfolio will reference the journal article *15 Challenges for AI: Or what AI (Currently) can’t do* to help de-mystify bold claims made in the media.[[7]](#footnote-7) AI has several problems relating to ethics and accuracy.[[8]](#footnote-8) This will highlight why learning fundamental software and coding skills are still valuable in the data science field. *Human-AI Collaboration in Data Science: Exploring Data Scientists' Perceptions of Automated AI* explores the combination of data analysis skills with AI.[[9]](#footnote-9) The journal article finds that many of the interviewees believe their future jobs will be a mix of human talent and AI assistance.[[10]](#footnote-10) This is the topic my portfolio will finish on.

Currently, my portfolio has been focused on exploring topics I am passionate about and crafting an audience, design and narrative around these topics. This first reflection includes references to the resources I have discovered. Once I refined my topic to focus on data analysis and AI, I learned fundamental HTML and Git skills to showcase my process in the form of a website. Moving forward, I will build on this portfolio by learning additional CSS, design and multimedia techniques to better communicate my topic. I will consult the references included in this first reflection and learn various coding examples to form the main content of my final website.

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