# **Demystifying Careers in Health Data Science**

HDR UK PhD programme leadership course project proposal

# Summary

We are proposing to help launch the alumni network with an annual health data science career fair involving HDR UK students (from all educational routes i.e. PhD, undergraduates, interns, apprenticeships). Companies, both partnered with HDRUK as well as guest businesses, will have the opportunity to present their work in a format that both introduces the business as well as provides an insight into the day-to-day life of working with the company as a healthcare data scientist. As an incentive to companies represented by HDR UK alumni members we propose discounted rates for their stalls.

# Why is this event needed?

Through our research (see references at end of document), we believe that there is a lack of an event that brings various companies with roles in health data science together. Most events of this format are usually tagged on as an afterthought in conferences or are focused solely on one company, and/or focus mostly on their research and act as a 'sales pitch'. Furthermore, we believe that since HDR UK is the national institute for health data science, they should take an active role in facilitating career searches within their industry. Currently, the careers page from the HDR UK website promotes all of their educational routes to give students the ability to apply for these roles; however it is lacking information about current job opportunities. With the introduction of the new HDR UK alumni network, we believe this opens up an opportunity to create an annual health data science careers fair that can link closely to the alumni network and help forge new career pathways for HDR UK affiliated students.

If this proposal goes ahead, we believe this will allow students an honest understanding of existing health data science companies (or companies with roles in this area). It will also allow companies currently operating in this space to discover potential future employees and potentially build relationships to increase collaborations with academia. Moreover, students can leverage the large breadth of training and educational opportunities presented by HDR UK more effectively once they have an idea of their future career aspirations. Finally, we believe this will strengthen the bond between academic and industrial collaborations, as well as provide a big incentive to joining (and interacting with) the new HDR UK alumni network.

Our first steps are to collate evidence that this type of event would be desirable and our approach to this will be to send surveys through the various HDR UK education routes as well as through the HDR UK alumni network. We are also currently arranging meetings (first meeting on 16/12/2021) through HDR UK channels (so far Sarah Cadman, David Seymour, Tim Frayling) to test the feasibility of our proposal and go through more of the details.

# What are the aims and objectives?

Our aims and objectives can be itemised as follows:

### Aims

- To give HDR UK education routes more access to opportunities within health data science careers
- Accelerate the growth and incentivise the membership of the HDR UK alumni network
- Provide a complete education-career pathway for health data scientists within HDR UK

## **Objectives**

- Create an annual event for the alumni network to facilitate knowledge sharing, growth as well as incentivise membership
- Give employers the opportunity to showcase their current open roles and increase their exposure
- Give students access to a diverse network of opportunities within health data science
- Give students a deeper understanding of the day-to-day work for a health data scientist in industry
  - How their skills from educational routes set them up within careers
  - How a typical day varies from company to company
  - The contrast between working in companies opposed to academia or for charitable organisations
  - The contrast between smaller start-ups and more established companies

# What outputs are we proposing?

We have a couple of key outputs for this proposal. Firstly, we will be running an in person careers fair involving stands from various companies affiliated with HDR UK. We will be asking companies to produce their posters/stalls ahead of time so that these can be distributed online for attendees who cannot make it, or would like to look back in their own time. If this event cannot be run in person, then we can make use of these as well as software such as Gathertown to run a virtual fair.

Specifically, we propose to produce a brochure for attendees that will outline the itinerary for the day, the floorplan for the event, as well as highlighting the HDR UK alumni network and the benefits in becoming a member. This can include success stories from individuals who have come through the HDR UK education routes and have now reached success in their career roles and are still active within the alumni network.

Logistically, we can set up invites to the careers fair through Eventbrite as this will allow us to monitor attendee numbers and we can potentially leverage the current HDR UK account to send out invites. We propose that attendees are restricted to those from HDR UK education routes (internships, apprenticeships, linked health data science undergraduates courses, postgraduate researchers) however this potentially could be expanded to other students at partner universities and beyond in future years based on the success of the event. We believe that transport to the event for HDR UK students should be paid for, and employers should pay a fee to partake in the event (in return for exposure to potential future employees). This amount will be decided by speaking to individuals who have experience setting up similar events such as career fairs at universities to gauge the appropriate amount. As the event is planned to be in person, the event will begin in the afternoon to allow for people travelling to arrive at the event. Minimal catering facilities will be provided i.e. tea, coffee, biscuits for attendees, however the event will not be a full day, hence we do not expect it to warrant further catering facilities. We can leverage HDR UK channels to promote the event, as for the first year the attendees will be HDR UK-affiliated (so email chains should be sufficient). Industry partners and employees that are collaborating with HDR UK or are members of The Alliance can be invited through appropriate liaison channels. Reaching out to more employers can be done through various social media channels, and importantly, through connections of those in the HDR UK network.

### What are the outcomes and outcome indicators?

We expect our outcomes to be as follows:

#### **Outcomes and Outcome Indicators**

- We expect the students attending the event to have a clearer understanding of their desired career path (related to their progress in education i.e. undergraduate, postgraduate, apprenticeship)
  - We propose short post-event surveys for attendees to evaluate the usefulness of the event in 'demystifying' careers in health data science. This will allow us to quantitatively judge the effectiveness of the event and will include questions such as: Do you have a stronger direction for where you want to go career-wise?; Do you have a clearer idea for your preference between industry/academia routes?; Do you now have an understanding for the differences between working within start-ups compared to more established businesses?
- We expect industry partners and employers to gain a deeper understanding about the

wants/needs for health data scientists entering employment as well as receiving an opportunity to advertise their businesses and opening roles

- This could be followed-up in later years by looking at graduates in the alumni network and where they progress to. This will allow us to judge if these events are having an influence on their decisions or destinations
- We expect HDRUK to forge a closer interaction with affiliated partners as well as see benefits in terms of alumni interaction and growth
  - Can see this interaction through involvement with education routes as well as increase in employer attendance annually for the event
  - Through the post-event survey, we can judge the views of the alumni members on how useful the event was, which can also influence the running year-to-year. Importantly, this can give members who are not in the alumni network a better understanding of and more justification to become part of it

## References

- 1. UCL Al In Medicine https://uclmed.tech/ai-in-medicine/
- 2. Responsible Al Series From Institute of Engineering and Technology https://ai-systems.theiet.org/?utm\_source=twitter&utm\_medium=social&utm\_campaign=ai&utm\_content=twitter
- 3. <u>Artificial Intelligence in Genomic Medicine From The Royal Society of Medicine</u> https://www.rsm.ac.uk/events/medical-genetics/2021-22/mgq50/
- 4. <u>Translating Artificial Intelligence into Clinical Practise From The Christabel Pankhurst</u> Institute -

https://www.eventbrite.co.uk/e/translating-artificial-intelligence-into-clinical-practice-ticket s-157236303015?aff=estw&utm-campaign=social&utm-content=attendeeshare&utm-me dium=discovery&utm-source=tw&utm-term=listing%20@EventbriteUK

- Al and Data Science in the Age of Covid-19 https://www.turing.ac.uk/events/ai-and-data-science-age-covid-19
- 6. <u>Cambridge Centre for AI in Medicine Inaugural Event</u> https://ccaim.cam.ac.uk/ccaims-inaugural-online-event-join-us/
- University of Cambridge Career Fairs (Specifically STEM) https://unicamcareers.edublogs.org/2020/08/20/virtual-careers-fairs/
- 8. <u>Imperial College London Data and Analytics Career Fair</u> https://www.imperial.ac.uk/careers/whats-on/careers-fairs/data/