

Senior Clinical Scientist, Bioinformatician

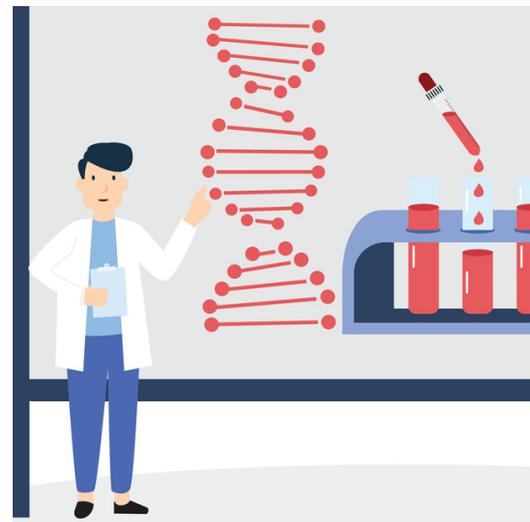
Adam Partlow
Healthcare Science



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I am a registered clinical scientist and my role as a Clinical Bioinformatician applied to the physical sciences means I work closely with colleagues in the area of medical physics and clinical engineering. I am based in a rehabilitation engineering department which means I regularly work closely with rehabilitation engineers and clinical engineers to improve how we deliver our services to patients.



My main role includes analysing our systems, past clinical records, and information to identify areas for improvement and then developing tools that can be used to improve how we do things. This could include developing software to automate processes or increase the reliability of manual process; or informing decisions about how we can redesign our clinical pathways. It is essential I make use of cutting-edge technologies such as AI (Artificial Intelligence) and ML (Machine Learning) in service improvements as we do not want to be left behind by technological advancements.

In addition to my main role I have a clinical role in our Clinical Gait Analysis service where I work with other clinical scientists/engineers. I also provide advice and guidance to the wider organisation due to my expertise in software as a medical device. I am also actively involved in research within the department and in collaboration with universities. I want to give our services the best tools possible so they can provide the highest quality care to our patients.

My job involves using computer coding to analyse data produced when DNA is sequenced. This information is used to identify if a change in the DNA (or the genetic code) is the cause of a genetic disease or associated with a cancer. This involves working closely with clinicians, genomic counsellors, laboratory staff who prepare the samples, and clinical scientists who interpret and report the results. We process several hundred samples a week and follow strict guidelines to ensure that everything is analysed accurately. My role is a little different from a standard bioinformatician, as I'm also involved in researching and developing cutting edge techniques which can improve this process, giving more accurate



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and rapid results to patients.

I enjoy being able to make a difference to people's working lives and patient's lives by improving the way we things. Simple tools can save people a couple of minutes here and there which builds up to hours in the long run. This has a positive impact on people's work-life but also the care we deliver to patients.

My job would suit someone who is interested in understanding how things work and enjoys taking things apart and putting them back together. You need to have an interest in programming, the languages I use regularly are C#, R, and Python. You need to want to improve other people's ways of working and experiences through collaborating with others.