These 5 Careers Could Be the Future of Healthcare

Technology is not only changing the way we do healthcare, but also its career possibilities.

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Healthcare once brought to mind disciplines like anatomy, biology and pharmaceutical medicine. Now the field is a different landscape, with artificial intelligence, genomics and big data dominating discussions. Technology is changing healthcare, which opens the door to many new career possibilities.

Here are some of the most exciting specialty areas for healthcare careers in 2021 and beyond:

Personalized medicine

Historically, medicines haven't been developed with the individual in mind. A majority of trial participants would have to find a pharmaceutical drug effective before a doctor prescribes that drug in the hopes a patient would benefit too. But science's newfound understanding of the human genome has made it possible to start thinking of medicine in individual terms and create targeted treatments based on individual genetic profiles.

Precision medicine, or alternatively personalized medicine, is a growing area of healthcare that demands different kinds of

expertise. Bioinformaticians are needed to analyze genome data, while genetic counselors work with patients to examine their genetic history and advise them on procedures. Scientists and researchers specializing in this area are needed to run programs in academia and the private sector. Personalized medicine aids in the fight against numerous diseases, including different kinds of cancers.

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Imaging-based screening

Medical professionals wear many hats, and specialties often bleed into one another. In this complex landscape, new healthcare roles are combining different types of skills and experiences to better serve the patient. For example, imaging is a key part of a doctor’s toolkit and routinely diagnoses and treats disease, yet radiologists are in large part left out of the decision-making process. Some radiologists suggest their profession would benefit from the creation of screening radiologists. This sub-specialty combines expertise in both imaging and screening science, which could bring their perspectives and technical expertise to the screening process.

Health data science

Big data is driving innovation in just about every corner imaginable, and healthcare is no exception. Health data is everywhere, from medical records and published research to adverse event databases and health department reports. This data often exists in various silos and is bound by privacy protections, making its retrieval a complicated endeavor. Data scientists are in growing popularity, as increasing demand drives the need to locate, analyze and extract this data securely.

AI and machine learning

Artificial intelligence (AI) and machine learning techniques make it possible to do extraordinary things with data. In pharmaceutical research and development, for instance, researchers are learning how to accelerate the discovery of new medications by using machine learning to automate otherwise time-consuming processes. In radiology, new AI programs can automatically analyze images to improve a specialist's workflow and help prioritize patients who need immediate attention.

Machine learning engineers and research scientists will need to put their minds to creating and implementing algorithms for new healthcare tasks. Specialists in cloud technology are also vital here, as cloud platforms are integral to the function of AI and machine learning technologies. With so much to learn in terms of AI's capabilities, this can be an especially exciting career area to pursue.

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Virtual reality and robotics

People may not associate virtual reality and robotics with healthcare, but the two areas have potential for significant applications in the field. Virtual reality (VR) is proving to be extremely valuable for training medical students and assisting surgeons in preparing for procedures. Meanwhile, people are using robotics in ways that can range from greeting patients to transporting them.

These areas offer big opportunity for VR and robotics engineers and designers interested in using their skills in ways that can improve the quality of life for patients.

Medical practitioners with interdisciplinary experience might even be able to establish a company with dedicated VR training according their expertise.

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Collaborating and crossing disciplines

There isn’t one path to these 21st-century healthcare careers. Although holding multiple degrees can be helpful for some roles, they aren’t always necessary. Continuing education, certification programs, internships and fellowships are among the many educational avenues that could help you take the step from one discipline into another. In many cases, multi-disciplinary collaborations – like IT specialists working with healthcare administrators, or data scientists working with epidemiologists – are how projects advance.

No matter what your skills and passions may be, the healthcare sector is brimming with opportunities for those interested in the growing intersection of science, medicine and technology.

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