BIR
The British Institute of Radiology

20 MAY 2021



MACHINE LEARNING TECHNOLOGY: AN INTRODUCTION FOR HEALTHCARE PROFESSIONALS

Virtual event

CPD: 3 CREDITS

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Machine learning technology: an introduction for healthcare professionals

Virtual event

CPD: 3 CREDITS

Machine learning algorithms are starting to become more widely implemented in a variety of software applications within radiology and radiotherapy. However, there remains a shortage of healthcare professionals with an understanding of such technologies, particularly in relation to their advantages and limitations.

This introductory, educational event is designed to increase the knowledge level of attendees such that more informed decisions can be made with regards implementation of machine learning tools in a clinical setting, whether purchased 'off-the shelf' or developed locally.

The event will provide a broad, high-level overview of key machine learning theories. Important issues related to clinical translation will also be discussed. Although no prior machine learning knowledge will be assumed, the event will briefly cover basic mathematical concepts. Therefore, a rudimentary understanding of statistics and linear algebra would be beneficial for getting the most out of the taught content.

Programme Organiser

Dr Jonathan Taylor, Principal Clinical Scientist, Nuclear Medicine & 3DLab, Sheffield Teaching Hospitals

Join us

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This course provides 3 CPD credits in accordance with the CPD Scheme of the Royal College of Radiologists

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2021

13:00	**Welcome and introduction** Dr Jonathan Taylor, Principal Clinical Scientist, Nuclear Medicine & 3DLab, Sheffield Teaching Hospitals
13:05	**Basic concepts** Dr Sarah Gulliford, Senior Proton Beam Therapy Physicist, University College London Hospitals NHS Foundation Trust
13:35	**Neural networks** Dr Zach Eaton-Rosen, Research Scientist, Graphcore
14:05	**Principals of training and validation** Dr James Leighs, Senior Clinical Scientist & Software Engineer, University Hospitals Southampton
14:35	**Q&A with first session speakers**
14:55	**Break**
15:15	**Applications** Mr Mark Graham, Research Associate, Kings College London
15:45	**The challenges of clinical implementation** Dr Shah Islam, Senior Consultant - Clinical, Hardian Health
16:15	**Q&A with second session speakers**
16:30	**Close of event**

Expect More from Auto-Contouring



"Contour ProtégéAI™ allows me to spend more time on the treatment planning process... Taking the contouring time out of that process allows me to spend more time generating a higher quality plan for our patients."

BRAD POLLARD | MEDICAL PHYSICIST AND DOSIMETRIST
AUSTIN CENTER FOR RADIATION ONCOLOGY
AUSTIN, TX

How Is Contour ProtégéAI Different?

While Contour ProtégéAI is a practical auto-contouring solution that uses deep learning algorithms to generate accurate initial results with minimal editing required, time-savings for OAR contouring isn't the only benefit.

Seamless Departmental Collaboration

Contour ProtégéAI delivers contours in a session customized to your preference for review and completion and facilitates a clean handoff to physicians, including time-saving tools for target volume segmentation.

Contouring Standardization

Contouring sessions include contour label templates customized to match your naming conventions and provide automated contour QA protocols to ensure consistent quality of contours.

Simple and Secure Deployment

Powered by MIMcloud®, Contour ProtégéAI's cloud-based deployment makes clinical implementation quick and easy in any environment. No special hardware is required. MIMcloud is safe, secure, and meets the requirements of hospital IT security teams.

*Contour ProtégéAI may not be available in all countries. Please speak with your MIM Software representative to see if Contour ProtégéAI is available in your region.

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Registered charity number: 215869

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