

## Machine Learning Applications in Genomics Webinar

2<sup>nd</sup> December, 1pm-2pm (UK time), Zoom

Supercomputing Wales is a £16m programme of investment, part-funded by the European Regional Development Fund (ERDF) through the Welsh Government, to provide university research teams access to powerful computing facilities to undertake high-profile science and innovation projects within the consortium universities – Cardiff University, Swansea University, Bangor University and Aberystwyth University.

In its partnership with Atos and Dell Technologies, Supercomputing Wales provides training workshops for university students, staff and research software engineers. The *Machine Learning Applications in Genomics* session planned for **2<sup>nd</sup> December 2021** will review the use cases for Artificial Intelligence neural networks, Bayesian network and decision trees.

<p><b>Session Title &amp; Registration</b></p>	<p><b>Machine Learning Applications in Genomics Webinar (via Zoom)</b>  <b>2<sup>nd</sup> December at 1pm-2pm (UK time).</b>  <b>Register via: <a href="https://tinyurl.com/45c45ns7">https://tinyurl.com/45c45ns7</a></b></p>
<p><b>Abstract</b></p>	<p>As the amount of genomic data continuously grows due to the advances in sequencing technologies, the number of studies utilizing machine learning algorithms increases as some of these algorithms allow the integration of massive amounts of heterogenic data without domain knowledge. There however isn't a single algorithm that works for all the data. In real-life precautions and sanity checks are needed to make the practice efficient.</p> <p>In this webinar, we will examine artificial neural network and the foundation for deep learning, decision tree considered as a weak learner, and the application of Bayesian network in Genomics.</p>

<p><b>Presenter</b></p>  <p><b>Kihoon Yoon</b></p>	<p><b>Kihoon Yoon is Senior Principal Systems Development Engineer at Dell Technologies' HPC &amp; AI Innovation Lab. Kihoon is responsible for developing Dell HPC and AI reference architecture for the Healthcare and Life Sciences vertical.</b></p> <p><b>He is a formerly trained biologist and a computer scientist who received an M.S. in Microbiology from Konkuk University, South Korea, an M.S. and Ph.D. in Computer Science from the University of Texas at San Antonio.</b></p> <p><b>Kihoon has work experience in cancer genomics research, computational biology research, and the development of machine learning algorithms for imbalanced data problems. Kihoon is interested in parallelizing next generation sequencing and data process workflow.</b></p>
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For enquiries and session related questions please contact [Kevin Ashelford](#).