THE UNIVERSITY
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A U S T R A L I A

Tutorial 3a
Convolutional Neural Networks

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1 Convolution

Describe the concept of convolution, making sure to include:

1. key equations and the fundamental concept behind it

2. differences between discrete and circular convolution

3. an example where it might be useful

2 Discrete Convolution

If $x[n] = [1, 1, 1]$ and $h[n] = [1, 1, 1]$ and $y[n] = x[n] * h[n]$, where $*$ is the discrete convolution

1. what is the length of $y[n]$?

2. Calculate $y[n]$