David Taylor FYP record of Information Sources

2020

Contents

[Resources That I have viewed / read 2](#_Toc54953585)

# Book Keycodes:

Red – Quotable Text

Green – Important info for a quick recap

Purple – Useful Graphs in the book

Orange – Look up more

# Book Quotes

Pg 2 at the bottom different types of nn connections

Pg 50 just defore chart this has historicly been a source of issues in the world of deep learning

# Resources That have been viewed/read

1: Link: <https://github.com/getnamo/tensorflow-ue4> Type: Download Use: Connect UE4 Car Simulation To TensorFlow API Date: 15th OCT 2020

2: Link: <https://ieeexplore.ieee.org/abstract/document/155228> Type: Knowledge Use: Read Of Potential Methods Date: 16/10/20

3: Link: <https://ieeexplore.ieee.org/abstract/document/109558> Type: Knowledge Use: Research into VLSI neural Network talked about above Date: 16/10/20 Ref: 2

4: Link: <https://www.projectsmart.co.uk/7-project-management-types-and-when-to-use-them.php> Type: Knowledge Use: Summary of 7 project management methodologies Date: 16/10/20

5: Link: <https://www.apm.org.uk/resources/find-a-resource/agile-project-management/> Type: Knowledge Use: Understanding different Project management methodologies Date: 16/10/20

6: Link: <https://www.asimovinstitute.org/neural-network-zoo/> Type: knowledge Use: Summary of a large number neural network architectures Date: 23/10/20

7: Link: <https://www.tensorflow.org/resources/learn-ml/basics-of-machine-learning> Type: Knowledge Use: Recommended Steps to learn TensorFlow Date: 30/10/20

8: Link: <https://www.manning.com/books/deep-learning-with-python> Type: Knowledge Use: To Know what book to get Date: 30/10/20

9: Link: <https://www.udacity.com/course/intro-to-tensorflow-for-deep-learning--ud187> Type: Knowledge Use: Practice and learn ML (I will buy the book) Date: 30/10/20

10: Link: <https://www.coursera.org/professional-certificates/tensorflow-in-practice> Type: Knowledge Use: Practice and Learn ML Date: 30/10/20

11: Link: <tensorflow.org/tutorials/keras/classification> Type: Knowledge Use: Practice ML through tutorials Date: 30/10/20

12: Link: <https://www.oreilly.com/library/view/hands-on-machine-learning/9781492032632/> Type: knowledge Use: go deeper with TensorFlow (I will buy the book) Date: 30/10/20

Nvidea self driving car paper – Layouts (Fully connected dense layers going from large to small)

Not directly comparable as the ai in the paper takes images and then uses that to steer so to compensate Ive lowered the amount of layers and size of each layer

<https://images.nvidia.com/content/tegra/automotive/images/2016/solutions/pdf/end-to-end-dl-using-px.pdf>

“End2End learning can also be formulated as a backpropagation algorithm scaled up to complex models. The paradigm was first introduced in the 1990s, when the Autonomous Land Vehicle in a Neural Network (ALVINN) system was built [110]. ALVINN was designed to follow a pre-defined road, steering according to the observed road’s curvature” <https://arxiv.org/pdf/1910.07738.pdf>

Paper about different ai methods (old method that worked with a camera)

Took out camera by still using background layers (backprop) Took out camera as it would involving the car being one frame behind at best or at worst have to simple render the game world save the images and then feed that into gpu (not suitable for a gameing system as this would have too much overhead)