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| Week | Date | Class Day | Topic | PRE-Class Activity Due (chapters from Goodfellow, et al) | Assessment Due |
| 1 | 24-Jun | 1 | ROE & Course Intro |  |  |
|  | 26-Jun | 2 | Perceptrons | Fyfe readings, setup TensorFlow & Keras; |  |
| 2 | 01-Jul | 3 | Feedforward Networks | Skim CH1-5, Read CH 6 |  |
|  | 03-Jul | 4 | Backpropagation |  | HW1 - Perceptron |
| 3 | 08-Jul | 5 | Regularization p1 | CH 7 |  |
|  | 10-Jul | 6 | Regularization p2 |  | Project Proposal |
| 4 | 15-Jul | 7 | Optimization p1 | CH 8 | Student Lecture Selection |
|  | 17-Jul | 8 | Optimization p2 |  | HW2 - ANN |
| 5 | 22-Jul | 9 | Convolutional Networks intro | CH 9 |  |
|  | 24-Jul | 10 | Recurrent/Recursive Nets intro | CH 10 |  |
| 6 | 29-Jul | 11 | CNN Applications – object classification, detection & image segmentation (Michael Crowl & Andrew Lee) |  |  |
|  | 31-Jul | 12 | CNNs in practice – data augmentation; voxelation & points clouds (Aubrey Olson, Terrence Yi) |  | HW3 - CNN |
| 7 | 05-Aug | 13 | Practical RNNs – LSTM (Stephen Lee & Spenser Sellers) |  |  |
|  | 07-Aug | 14 | Practical RNNs – GRU  (Josh Gallaher & Alex Kamrud) |  |  |
| 8 | 12-Aug | 15 | Convolution in Time – TCNs (Mark Carrol, Dan Koranek) |  | Draft Project Report  (optional) |
|  | 14-Aug | 16 | Interesting Networks - Radial Basis Function Networks and Bidirectional RNNs (Garret Alarcon & Nick Forrest) |  | HW4 - RNN |
| 9 | 19-Aug | 17 | Interesting Applications – Deconvolution Networks and Introduction to NN in game learning design (Dan Gum & David Ellis) |  |  |
|  | 21-Aug | 18 | Deep Reinforcement Learning (Nat Beveridge & Justin Merrick) |  |  |
| 10 | 26-Aug | 19 | Autoencoders (Luis Rosario & Josiah Watson) |  | Project Videos |
|  | 28-Aug | 20 | One shot learning and Siamese networks (David Crow & David Tibbets) |  |  |
| 11 - Finals | 6 Sep (tentative) |  | Project Video Presentations |  | Final Project Report  (Due 3 Sep 2019) |