

# Deep Learning, Columbia University

## Fall 2018 Projects

<b>Computer Vision and Robotics</b>
Discriminative Motion Cue Network for Efficient Video Action Recognition
Adaptive Neural Style Transfer
Real Time Video SSD with Tracking
Exploring Patched Atrous Convolution
3D YOLO with Uncertainty
GQN for Human Face Transformation and Unity Games
Adaptive Neural Style Transfer
Google Quickdraw Kaggle Competition: 5 Teams
<b>Imaging</b>
Assessing the Ability of CNNs to Detect Glaucoma from OCT Probability Maps
Adaptive Feature Map Learning for Multiplex Ion Beam Imaging
Recommending References for Automatic Image Colorization
Kaggle Challenge: Human Protein Atlas Image Classification
<b>Natural Language Processing</b>
SciFi Movie Chatbot: Vader meets Potter
NBA Post-Game Summary Generation
Hierarchical Neural Talking Point Generation
Comparison of Deep Information Retrieval Methods for Multi-Hop Question Answering
Rotten Tomatoes Sentiment Analysis Kaggle Competition
Graph Convolutional Networks for Quora Insincere Questions Classification
Hierarchical Neural Generation of Peoms and News
<b>Cybersecurity</b>
Network Traffic Classification of Encrypted SNI Over TLS using Deep Learning
<b>Data Augmentation</b>
Measuring the Impact of AutoAugment on Classification Performance Across Image Datasets
Automatic Data Augmentation Policy Selection
<b>Game Playing</b>
Modeling Responses to Irrational Behaviour in Poker using Deep Learning
AlphaZero for Minichess
Efficient Implementation Solving the Rubik's Cube without Human Interaction
<b>GANs</b>
Music GANs: Piano, Guitar, and Drums
Comparing GANS for Single Image Super-Resolution
Realistic Image Synthesis with Stacked GANs
<b>Protein Structure</b>
3D Protein Structure Prediction