

Twitter Thread by Steven Edwards



Steven Edwards

@stephenwithavee



Time for #PapersThatMakeYouGoHmmm! A weekly summary of new ML papers from arXiv that make me think one or more of:

- 1. That looks useful!**
- 2. That's an interesting approach!**
- 3. A business could be built around this!**
- 4. How did they do that?!**

How can I choose an explainer? An Application-grounded Evaluation of Post-hoc Explanations

<https://t.co/GTAaqHRgi1>

Validating Label Consistency in NER Data Annotation

<https://t.co/eeYBU4AUvT>

A two-stage data association approach for 3D Multi-object Tracking

<https://t.co/h3LijchIzC>

Neural Networks, Artificial Intelligence and the Computational Brain

<https://t.co/2jJHGIHYsn>

Mindless Attractor: A False-Positive Resistant Intervention for Drawing Attention Using Auditory Perturbation

<https://t.co/QhahrfRN5T>

Boost then Convolve: Gradient Boosting Meets Graph Neural Networks

<https://t.co/gM4vCIMMzW>

Deep Reinforcement Learning with Spatio-temporal Traffic Forecasting for Data-Driven Base Station Sleep Control

<https://t.co/xvyYotmqBG>

Discussion of Ensemble Learning under the Era of Deep Learning

<https://t.co/eqdMw8WNEU>

Do we need to go Deep? Knowledge Tracing with Big Data

<https://t.co/Z3EtibSYA3>

mt5b3: A Framework for Building Autonomous Traders

<https://t.co/w6sBscN3uo>

SUGAR: Subgraph Neural Network with Reinforcement Pooling and Self-Supervised Mutual Information Mechanism

<https://t.co/oO0r8lOshz>

Classifying Scientific Publications with BERT -- Is Self-Attention a Feature Selection Method?

<https://t.co/7pAUbTGfLb>

Collision-Free Flocking with a Dynamic Squad of Fixed-Wing UAVs Using Deep Reinforcement Learning

<https://t.co/1R4qJ5M0Eq>

Adversarial Attacks for Tabular Data: Application to Fraud Detection and Imbalanced Data

<https://t.co/S3fQcgbNcK>

UPDeT: Universal Multi-agent Reinforcement Learning via Policy Decoupling with Transformers

<https://t.co/8sPKuqAPnQ>

DynaComm: Accelerating Distributed CNN Training between Edges and Clouds through Dynamic Communication Scheduling

<https://t.co/UcgL7WDUGv>

Noise Learning Based Denoising Autoencoder

<https://t.co/hPSCIsZTTP>

Illuminating the Space of Beatable Lode Runner Levels Produced By Various Generative Adversarial Networks

<https://t.co/7xawUMSYSW>

Spatial Assembly: Generative Architecture With Reinforcement Learning, Self Play and Tree Search

<https://t.co/b6PQNPyDef>

Creation and Evaluation of a Pre-tertiary Artificial Intelligence (AI) Curriculum

<https://t.co/7qA7BomthH>

Dissonance Between Human and Machine Understanding

<https://t.co/nRBclDloSP>

A System for Automated Open-Source Threat Intelligence Gathering and Management

<https://t.co/zRIE873tMW>

Classification of Pedagogical content using conventional machine learning and deep learning model

<https://t.co/kFt1Vr11DS>

GLocalX -- From Local to Global Explanations of Black Box AI Models

<https://t.co/jNEAt3yDei>

An Artificial Intelligence based approach to estimating time of arrival and bus occupancy for public transport systems in Africa

<https://t.co/oQkFARvo0e>

Edge-Featured Graph Attention Network

<https://t.co/5jRr0ynqHA>

Situation and Behavior Understanding by Trope Detection on Films

<https://t.co/2tTVFlj7BM>

Meta-Reinforcement Learning for Adaptive Motor Control in Changing Robot Dynamics and Environments

<https://t.co/wsMBpdo3zG>

Disentangled Recurrent Wasserstein Autoencoder

<https://t.co/KNKdFN9RII>

GIID-Net: Generalizable Image Inpainting Detection via Neural Architecture Search and Attention

<https://t.co/eGikz92WGB>

Grounding Language to Entities and Dynamics for Generalization in Reinforcement Learning

<https://t.co/8AC8HngYI1>

An attention model to analyse the risk of agitation and urinary tract infections in people with dementia

<https://t.co/51FwnK9i5v>

Faster Convergence in Deep-Predictive-Coding Networks to Learn Deeper Representations

<https://t.co/4lp4UxSYMV>

Adversarial Interaction Attack: Fooling AI to Misinterpret Human Intentions

<https://t.co/abJTLSpTss>

Understanding in Artificial Intelligence

<https://t.co/b5kufxxoL5>

A Literature Review of Recent Graph Embedding Techniques for Biomedical Data

<https://t.co/6TRfUgqv1v>

Artificial Intelligence for Emotion-Semantic Trending and People Emotion Detection During COVID-19 Social Isolation

<https://t.co/OYEPMDtf5I>

An Empirical Comparison of Deep Learning Models for Knowledge Tracing on Large-Scale Dataset

<https://t.co/VtsS1g7pVx>

Leveraging AI to optimize website structure discovery during Penetration Testing

<https://t.co/tZxbNs99Tu>

Is it a great Autonomous FX Trading Strategy or you are just fooling yourself

<https://t.co/ted6dt7jBd>

Deep Reinforcement Learning for Active High Frequency Trading

<https://t.co/C4iR7RNfs2>

Studying Catastrophic Forgetting in Neural Ranking Models

<https://t.co/GtzumvDLEj>

Motor-Imagery-Based Brain Computer Interface using Signal Derivation and Aggregation Functions

<https://t.co/TxUEKByuBX>

DeepPayload: Black-box Backdoor Attack on Deep Learning Models through Neural Payload Injection

<https://t.co/aNjfrPm8Gd>

Cooperative and Competitive Biases for Multi-Agent Reinforcement Learning

<https://t.co/4lYbSyvDH3>

CheXtransfer: Performance and Parameter Efficiency of ImageNet Models for Chest X-Ray Interpretation

<https://t.co/8tMpbWAu1b>

Stacked LSTM Based Deep Recurrent Neural Network with Kalman Smoothing for Blood Glucose Prediction

<https://t.co/KzvOxzqexs>

Deep Parametric Continuous Convolutional Neural Networks

<https://t.co/m3jGJWSnXr>

Coarse Temporal Attention Network (CTA-Net) for Driver's Activity Recognition

<https://t.co/B3EG8k37SB>

GENIE: A Leaderboard for Human-in-the-Loop Evaluation of Text Generation

<https://t.co/rjx4yjnNQj>

TrafficSim: Learning to Simulate Realistic Multi-Agent Behaviors

<https://t.co/fAEPrJmbYB>

AdvSim: Generating Safety-Critical Scenarios for Self-Driving Vehicles

<https://t.co/wPPbWpOR36>

AdvSim: Generating Safety-Critical Scenarios for Self-Driving Vehicles

<https://t.co/wPPbWpOR36>

GeoSim: Photorealistic Image Simulation with Geometry-Aware Composition

<https://t.co/AcLGlax0fk>

SceneGen: Learning to Generate Realistic Traffic Scenes

<https://t.co/JNOxqvAeKB>

Towards Searching Efficient and Accurate Neural Network Architectures in Binary Classification Problems

<https://t.co/Tjh0adUiNv>

Slot Machines: Discovering Winning Combinations of Random Weights in Neural Networks

<https://t.co/XB0dKTws4J>

NNStreamer: Efficient and Agile Development of On-Device AI Systems

<https://t.co/s6SOklUTsp>

AR-based Modern Healthcare: A Review

<https://t.co/pcoZB3J3ka>

Attention Based Video Summaries of Live Online Zoom Classes

<https://t.co/M4ZStoy1AN>

When SIMPLE is better than complex: A case study on deep learning for predicting Bugzilla issue close time

<https://t.co/YTIAAWqAcD>

On the Verification and Validation of AI Navigation Algorithms

<https://t.co/gwBaqOeu4c>

Local Navigation and Docking of an Autonomous Robot Mower using Reinforcement Learning and Computer Vision

<https://t.co/YHLUQ5Spla>

LIME: Learning Inductive Bias for Primitives of Mathematical Reasoning

<https://t.co/rsqGk5fQ8b>

Player-AI Interaction: What Neural Network Games Reveal About AI as Play

<https://t.co/DIzXf1wuW6>

Probabilistic Inference for Learning from Untrusted Sources

<https://t.co/PFyTH6jZyp>

Teaming up with information agents

<https://t.co/fpaMVZIH0k>

How AI Developers Overcome Communication Challenges in a Multidisciplinary Team: A Case Study

<https://t.co/kStzf3RoTX>

Black-box Adversarial Attacks in Autonomous Vehicle Technology

<https://t.co/0B2xkavOWt>

Motion-Based Handwriting Recognition

<https://t.co/IT0ybiyiAl>

Affordance-based Reinforcement Learning for Urban Driving

<https://t.co/Do6J5eo7j6>

Randomized Ensembled Double Q-Learning: Learning Fast Without a Model

<https://t.co/St76T1uGLq>

Responsible AI Challenges in End-to-end Machine Learning

<https://t.co/u3drnpONrR>

Mining Knowledge Graphs From Incident Reports

<https://t.co/Sm1wZA2gYQ>

Descriptive AI Ethics: Collecting and Understanding the Public Opinion

<https://t.co/3u3By4Vxlz>

Hostility Detection and Covid-19 Fake News Detection in Social Media

<https://t.co/GlrtTAalKE>

Robusta: Robust AutoML for Feature Selection via Reinforcement Learning

<https://t.co/ihKgihjDfV>

KDLSQ-BERT: A Quantized Bert Combining Knowledge Distillation with Learned Step Size Quantization

<https://t.co/rZBlbHStLd>

Neural Attention Distillation: Erasing Backdoor Triggers from Deep Neural Networks

<https://t.co/oPTKZbiaHd>

Interpretable Multi-Head Self-Attention model for Sarcasm Detection in social media

<https://t.co/aU5g6hXOaS>

Knowledge-Preserving Incremental Social Event Detection via Heterogeneous GNNs

<https://t.co/mHFCoQBzCm>

ItNet: iterative neural networks with tiny graphs for accurate and efficient anytime prediction

<https://t.co/38lvf3iTys>

Adversarial Machine Learning in Text Analysis and Generation

<https://t.co/OAaQGy3VD9>

Dive into Decision Trees and Forests: A Theoretical Demonstration

<https://t.co/YEd3NpQqLc>

Stress Testing of Meta-learning Approaches for Few-shot Learning

<https://t.co/CP6QDkSUPF>

Collaborative Teacher-Student Learning via Multiple Knowledge Transfer

<https://t.co/UW74MHAewV>

Analysis of Information Flow Through U-Nets

<https://t.co/H7Oay6mTpi>

Distilling Interpretable Models into Human-Readable Code

<https://t.co/tNph0XpFDT>

Invariance, encodings, and generalization: learning identity effects with neural networks

<https://t.co/kCJt8bajEP>

Can stable and accurate neural networks be computed? -- On the barriers of deep learning and Smale's 18th problem

<https://t.co/cHHRGBip9h>

Copycat CNN: Are Random Non-Labeled Data Enough to Steal Knowledge from Black-box Models?

<https://t.co/8Zx7fVfllp>

Explainable Patterns: Going from Findings to Insights to Support Data Analytics Democratization

<https://t.co/kuvkN4ZMZu>

MPASNET: Motion Prior-Aware Siamese Network for Unsupervised Deep Crowd Segmentation in Video Scenes

<https://t.co/ffTvTzz5rZ>

LEAF: A Learnable Frontend for Audio Classification

<https://t.co/3WaQ8MIC8A>

Customer Price Sensitivities in Competitive Automobile Insurance Markets

<https://t.co/3nlj6XJNYQ>

Pre-training without Natural Images

<https://t.co/m1IBQFT9KJ>

Arabic Speech Recognition by End-to-End, Modular Systems and Human

<https://t.co/6rWnWJvJiR>

Ensemble learning and iterative training (ELIT) machine learning: applications towards uncertainty quantification and automated experiment in atom-resolved microscopy

<https://t.co/lumhRoaVhf>

Influence Estimation for Generative Adversarial Networks

<https://t.co/ypMwRmSJqv>

Text Line Segmentation for Challenging Handwritten Document Images Using Fully Convolutional Network

<https://t.co/R9SiU4pWEy>

TensorBNN: Bayesian Inference for Neural Networks using Tensorflow

<https://t.co/5wEXw5ECXL>

Bayesian Neural Networks for Fast SUSY Predictions

<https://t.co/eEjxi4ybgU>

Probabilistic Solar Power Forecasting: Long Short-Term Memory Network vs Simpler Approaches

<https://t.co/FdvIcYrTJZ>

Rank the Episodes: A Simple Approach for Exploration in Procedurally-Generated Environments

<https://t.co/XFZLPMcLL>

Deep Learning for Intelligent Demand Response and Smart Grids: A Comprehensive Survey

<https://t.co/WfdmTkw69N>

Intelligent Icing Detection Model of Wind Turbine Blades Based on SCADA data

<https://t.co/1OjpuDYWcY>

Machine learning applications for COVID-19: A state-of-the-art review

<https://t.co/9DSd3TfB4D>

Implicit Bias of Linear RNNs

<https://t.co/lfgXSmwaFb>

Open-Domain Conversational Search Assistant with Transformers

<https://t.co/8iMUvwb0To>

Machine learning for rapid discovery of laminar flow channel wall modifications that enhance heat transfer

<https://t.co/IQKIMjf5Hv>

Variational Autoencoders with a Structural Similarity Loss in Time of Flight MRAs

<https://t.co/zS4DRvfhl7>

Bridge the Vision Gap from Field to Command: A Deep Learning Network Enhancing Illumination and Details

<https://t.co/EA9GZDwoQO>

Cross-domain few-shot learning with unlabelled data

<https://t.co/DW7JGPcNwS>

Classification of COVID-19 X-ray Images Using a Combination of Deep and Handcrafted Features

<https://t.co/JswvK6YIQJ>

The Devils in the Point Clouds: Studying the Robustness of Point Cloud Convolutions

<https://t.co/Z9cl9d1n2b>

A Unifying Generative Model for Graph Learning Algorithms: Label Propagation, Graph Convolutions, and Combinations

<https://t.co/bWrX68Px11>

Image Denoising using Attention-Residual Convolutional Neural Networks

<https://t.co/5aG06Yf2RF>

Interpretable Models for Granger Causality Using Self-explaining Neural Networks

<https://t.co/DR34Ed1qGd>

Continual Deterioration Prediction for Hospitalized COVID-19 Patients

<https://t.co/OsBrVfw7kj>

Momentum² Teacher: Momentum Teacher with Momentum Statistics for Self-Supervised Learning

<https://t.co/bKhILExhy7>

PeerGAN: Generative Adversarial Networks with a Competing Peer Discriminator

<https://t.co/944IW7qRsm>

Collaborative Federated Learning For Healthcare: Multi-Modal COVID-19 Diagnosis at the Edge

<https://t.co/jBfVPPcvlY>

Optimizing Hyperparameters in CNNs using Bilevel Programming in Time Series Data

<https://t.co/Y1hnvcMo2K>

Deep Reinforcement Learning Optimizes Graphene Nanopores for Efficient Desalination

<https://t.co/r3B4ST2XIX>

Handling Non-ignorably Missing Features in Electronic Health Records Data Using Importance-Weighted Autoencoders

<https://t.co/MeBI9H7kS5>

Does Continual Learning = Catastrophic Forgetting?

<https://t.co/jk7tasU0IR>

A survey on shape-constraint deep learning for medical image segmentation

<https://t.co/OuSpETBxYG>

Predicting Pneumonia and Region Detection from X-Ray Images using Deep Neural Network

<https://t.co/qpDYzwLw2b>

Comparative Evaluation of 3D and 2D Deep Learning Techniques for Semantic Segmentation in CT Scans

<https://t.co/Q2nOU79sNv>

Deep Learning Models for Calculation of Cardiothoracic Ratio from Chest Radiographs for Assisted Diagnosis of Cardiomegaly

<https://t.co/GOe2yLmOWF>

Collaboration among Image and Object Level Features for Image Colourisation

<https://t.co/bVqv6ZWQTV>

Electrocardiogram Classification and Visual Diagnosis of Atrial Fibrillation with DenseECG

<https://t.co/EbrLI7pYe9>

The Unreasonable Effectiveness of Patches in Deep Convolutional Kernels Methods

<https://t.co/DcOI3AbCds>

COVID-Net CT-2: Enhanced Deep Neural Networks for Detection of COVID-19 from Chest CT Images Through Bigger, More Diverse Learning

<https://t.co/5uPWFcYtzQ>

Using Shape to Categorize: Low-Shot Learning with an Explicit Shape Bias

<https://t.co/VTDmjNd9QD>

Challenges in the application of a mortality prediction model for COVID-19 patients on an Indian cohort

<https://t.co/tx5Sc89T4Y>

A simple geometric proof for the benefit of depth in ReLU networks

<https://t.co/TT25NN3Z3M>

Emotional EEG Classification using Connectivity Features and Convolutional Neural Networks

<https://t.co/CgZhQGXLhC>

Deep Learning for Moving Blockage Prediction using Real Millimeter Wave Measurements

<https://t.co/8MIUI1ezGy>

Discrete Graph Structure Learning for Forecasting Multiple Time Series

<https://t.co/MXCAmJNoaX>

Heterogeneous Similarity Graph Neural Network on Electronic Health Records

<https://t.co/6WhEGlUVBZ>

Learning from pandemics: using extraordinary events can improve disease now-casting models

<https://t.co/7jWkDBEzv6>

Physics-Informed Deep Learning for Traffic State Estimation

<https://t.co/43BIFlrB6W>

Diverse Complexity Measures for Dataset Curation in Self-driving

<https://t.co/CZCCyoONoE>

Phases of learning dynamics in artificial neural networks: with or without mislabeled data

<https://t.co/5hgjP1yYgN>

Multi-objective Search of Robust Neural Architectures against Multiple Types of Adversarial Attacks

<https://t.co/aQbjE43vtA>

Visual Analytics approach for finding spatiotemporal patterns from COVID19

<https://t.co/pSrj6m6zi5>

Learning by Watching: Physical Imitation of Manipulation Skills from Human Videos

<https://t.co/SMWKivSQuU>

Latent Space Analysis of VAE and Intro-VAE applied to 3-dimensional MR Brain Volumes of Multiple Sclerosis, Leukoencephalopathy, and Healthy Patients

<https://t.co/XcyMard8Nf>

Trilevel Neural Architecture Search for Efficient Single Image Super-Resolution

<https://t.co/s5cJeOGptC>

MultiBodySync: Multi-Body Segmentation and Motion Estimation via 3D Scan Synchronization

<https://t.co/B9E2XzC4zC>

Data-driven discovery of multiscale chemical reactions governed by the law of mass action

<https://t.co/M2HkwCZBQm>

Temporal Clustering of Disorder Events During the COVID-19 Pandemic

<https://t.co/5M4wjgpubk>

Mispronunciation Detection in Non-native (L2) English with Uncertainty Modeling

<https://t.co/zYC4jpnXkH>

Comparison of Machine Learning for Sentiment Analysis in Detecting Anxiety Based on Social Media Data

<https://t.co/0B1e6SVE2d>

Exponential Kernels with Latency in Hawkes Processes: Applications in Finance

<https://t.co/S44KgRfJjs>

Deciding What to Learn: A Rate-Distortion Approach

<https://t.co/s6TPmGNN5M>

Artificial Intelligence for IT Operations (AIOps) Workshop White Paper

<https://t.co/ATqL7pEWkP>

The Geometry of Deep Generative Image Models and its Applications

<https://t.co/EwSU9rEiaw>

Comparisons of Graph Neural Networks on Cancer Classification Leveraging a Joint of Phenotypic and Genetic Features

<https://t.co/jcJIQk6gwJ>

A Neophyte With AutoML: Evaluating the Promises of Automatic Machine Learning Tools

<https://t.co/diHKuYRFdO>

Empirical Evaluation of Supervision Signals for Style Transfer Models

<https://t.co/0lxQ3WXzaN>

Needmining: Designing Digital Support to Elicit Needs from Social Media

<https://t.co/xRhSg5WL9I>

A New Artificial Neuron Proposal with Trainable Simultaneous Local and Global Activation Function

<https://t.co/252Oegv871>

Video Summarization Using Deep Neural Networks: A Survey

<https://t.co/LffqAz9gVb>

Nowcasting Gentrification Using Airbnb Data

<https://t.co/tySM5cSpy9>

How Shift Equivariance Impacts Metric Learning for Instance Segmentation

<https://t.co/OPdhtdDmC2>

[@threadreaderapp](#) unroll