JT Turner Ph.D.

www.jtt.ai
Washington DC

Passion

To continue to grow my technical knowledge of system and platform architectures while deploying state of the art neural networks to solve machine learning and AI problems at scale.

Relevant Experience

Accenture *Arlington, VA*

Data Science Consultant (Sep 2019 - present)

As a data science consultant I have been used as a subject matter expert and machine learning programer both for internal firm projects, as well as for a variety of clients including advertising companies and utility companies.

Clarifai *Tysons, VA*

Research Manager (2019): Worked in conjunction with executive team, product management, and engineering teams in order to build out a complete research team, and carryover ideas into practice and product

Senior Research Scientist (Aug 2018 - 2019): Researched, implemented, and contributed to state of the art aerial detection for government projects. Used knowledge and prototype results to guide company decisions and projects moving forward.

Knexus Research Corporation *National Harbor, MD*

Research Scientist (2015-2018): Read and researched state of the art deep learning and image processing algorithms related to deep learning, developed and tested algorithms for region proposal and hypothesis revision at Knexus in experimental settings. Used results to create research papers to be presented at conferences, and consult with other research engineers on product development.

Navy Center for Applied Research in Artificial Intelligence *Washington, DC*

Student Research Contractor (2014): Developed and tested in house and open source packages for feature extraction in images and video by modifying network topologies, presented findings at weekly research meetings for the *Recursive Structure Learning* project.

UMBC Computer Science Department *Baltimore, MD*

Graduate Research Assistant (2013-2014): Researched machine learning in the medical domain, wrote papers, advised and helped implement deep learning with other labs.

Undergraduate Teaching Assistant (2012): Served as a lab section TA for intro to computer science (for majors) taught in the python programming language.

Education

University of Maryland Baltimore County *Baltimore, MD*

Computer Science PhD, GPA: 3.47	Confers Dec 2019
Computer Science M.S., Thesis track, GPA: 3.47	Graduated Dec 2014
Computer Science B.S., Math minor, GPA: 3.41	Graduated May 2013

Skills

Languages: Highly experienced in Python2/3. Experienced in Common Lisp, Java, Bash, C.
Libraries: Highly experienced in numpy, caffe, tensorflow, opencv.
Other: Highly experienced with *nix, weka, deep learning, computer vision, machine learning, AI, statistical analysis.

Literature Review

Conferences	Workshops	Academic Theses	Misc
4	4	2	1

Selected Publications

(2019) NOD-CC: A Hybrid CBR-CNN Architecture for Novel Object Discovery (ICCBR 2019 oral presentation, 1st author): Expanding upon the 2018 ICCBR publication, designing a hybrid architecture for detection that allows for higher accuracy inferring new objects while still maintaining the flexibility of a CBR system.
(2018) Novel Object Discovery using Case-Base Reasoning and Convolutional Neural Networks (ICCBR 2018, 1st author): Using the output vectors of a residually trained convolutional neural network, create a case base to determine which unlabeled objects should be considered as the same "imaginary classes".
(2014) Deep belief networks used on high resolution EEG data for seizure detection (AAAI Workshop 2nd author): Given high resolution multichannel EEG data, variants of DBN network topologies were used on preprocessed features to detect seizures.
(2014) Comparing Raw Data and Feature Extraction for Seizure Detection with DL Methods (FLAIRS-27 Conference 1st author, 2014): Rigorous comparison of hand crafted features fed to DBNs against raw data given to deep autoencoders to detect seizures.

Other Publications

(2019) "VISUAL COMPUTATIONAL CONTEXT: USING COMPOSITIONS AND NON TARGET PIXELS FOR NOVEL CLASS DISCOVERY (PhD Dissertation)", *accepted at final defense.*
(2017) Using DL to Automate Feature Modeling in Learning by Observation (AAAI Workshop 2nd author)
(2017) Using Deep Learning to Automate Feature Modeling in Learning by Observation (FLAIRS-30 Conference 2nd author)
(2016) SPARCNN: SPAtially Related Convolutional Neural Networks (IEEE Workshop 1st author)
(2016) Keypoint Density-based Region Proposal (IEEE Workshop 1st author)
(2015) Convolutional Architecture Exploration for Action Recognition and Image Analysis (NCARAI Tech Note, 1st author)
(2014) "TIME SERIES ANALYSIS USING DEEP FEED FORWARD NEURAL NETWORKS" *Accepted at final defense.*

Interests: Baseball, Fishing, Home repair/maintenance, Formula 1 racing, Writing
Opinions: The designated hitter should not exist.