JT Turner Ph.D.

Washington, DC
Curriculum Vitae

Research Interests

Deep Learning
Computer Vision
Machine Learning
Sabermetrics

Education

2017-2019	**Ph.D. in Computer Science,** *University of Maryland Baltimore County.* 3.47/4. Advisor: Dr. Tim Oates
2013-2014	**M.S. in Computer Science,** *University of Maryland Baltimore County.* 3.47/4. Advisor: Dr. Tim Oates +Thesis track
2009-2013	**B.S. in Computer Science,** *University of Maryland Baltimore County.* GPA: 3.41/4. Major GPA: 3.84 +Dual Major in mathematics

Research Experience

2018-Pres	**Clarifai,** *Tysons Corner, VA.* +Fine grained object detection from MidAlt drones +Algorithmic development of tracking system +Applying best practices on data preprocessing
2014-2018	**Knexus Research Corporation,** *National Harbor, MD.* +Context based object detection in images. +Neural network enhancements for part detection. +Algorithms research for faster region proposal.

2014	**Autonomy Engine, LLC,** *Marriottsville, MD.*
	+Energy Model Classification of voice tones.

2014	**Naval Research Laboratory,** *Washington, DC.*
	+Neural architecture modifications for actions.

2013-2014	**CoRaL Lab,** *Baltimore, MD.*
	+Time series analysis of EEG signals for seizure Classification using deep learning

2012	**National Institute of Standards and Technology,** *Gaithersburg, MD.*
	+Video Interpolation of facial recognition and Integration with FFMPEG filters.

Teaching Experience

2013	**Undergraduate Teaching Assistant,** *CSEE Department, UMBC.*
	+Led 2 lab sections of CMSC 201.

2012	**Undergraduate Lab Assistant,** *CSEE Department, UMBC.*
	+ Assisted in lab for CMSC 201 and 202.

2011-2012	**Undergraduate Tutor,** *CSEE Department, UMBC.*
	+Tutored CMSC 104 - 314.

2010-2011	**Undergraduate Grader,** *CSEE Department, UMBC.*
	+Graded students projects for CMSC 201 and 202.

Professional Experience

<u>2019 - Present</u>
Accenture
Data Science Consultant
Arlington, VA.

<u>2018 - 2019</u>
Clarifai
Most Recent: Research Manager (Acting)
Previous: Senior Research Scientist
Tysons Corner, VA.

<u>2014-2018</u>
Knexus Research Corporation
Research Scientist
National Harbor, MD.

<u>2012</u>
UMBC Computer Science/Electrical Engineering Department,
Unix System Administrator
Baltimore, MD.

Publications

2019   **"VISUAL COMPUTATIONAL CONTEXT: USING COMPOSITIONS AND NON TARGET PIXELS FOR NOVEL CLASS DISCOVERY (PhD Dissertation)"**, *accepted doctoral dissertation.*

2019   **"NOD-CC: A Hybrid CBR-CNN Architecture for Novel Object Discovery (ICCBR 2019)"**, *accepted at ICCBR-2019, 1st author.*

2018   **"Novel Object Discovery using Case-Based Reasoning and Convolutional Neural Networks"**, *accepted at ICCBR-2018, 1st author.*

2017   **"Using Deep Learning to Automate Feature Modeling in Learning by Observation"**, *accepted at FLAIRS-30*, 2nd author.

2017   **"Using Deep Learning to Automate Feature Modeling in Learning by Observation: A preliminary study"**, *accepted at AAAI-SS 2017*, 2nd author.

2016   **"SPARCNN: SPAtially Related Convolutional Neural Networks"**, *accepted at AIPR 2017, 1st author.*

2016   **"Keypoint Density Region Proposal for fine grained Object detection using regions with convolutional Neural network features"**, *accepted at AIPR 2017, 1st Author.*

2015   **"Convolutional Architecture Exploration for Action Recognition and Image Classification"**, technical note NCARAI, 1st author.

2014   **"Comparing Raw Data and Feature Extraction for Seizure Detection with Deep Learning Methods"**, accepted at FLAIRS-27, 2nd author.

2014   **"Deep belief networks used on high resolution multichannel electroencephalography data for seizure detection"**, accepted at AAAI-SS 2014, 1st author.

2013   **"TIME SERIES ANALYSIS USING DEEP FEED FORWARD NEURAL NETWORKS"**, accepted masters thesis.

Languages

English	Native
Spanish	Moderate
American Sign Language	Elementary

Computer Skills

Advanced:	Linux OS, Python, Java, Caffe
Proficient:	C, numpy, scipy, Theano
Basic:	C++, Perl, Bash, Tensorflow