Dylan Stewart

Education

PhD, Electrical Engineering, University of Florida, Gainesville, FL
Advisor: Dr. Alina Zare Concentration: Machine Learning Expected Graduation: 2022

B.S.E, Engineering Physics, *Summa Cum Laude*, May 2017
Murray State University, Murray, KY

Research Interests

Machine Learning, Pattern Recognition, and Computer Vision

Awards

Graduate Student Preeminence Award
Department of Electrical Engineering, University of Florida, 2017-2022
Society of Physics Students Outstanding Senior
Institute of Engineering, Murray State University, 2017
2nd Place Overall Engineering Presentation
Kentucky Academy of Sciences, University of Louisville, 2016

Research Experience

June 2017-Present

Graduate Research Assistant, University of Florida, Gainesville, FL
Machine Learning and Sensing Lab, Gainesville, FL
- Use MATLAB to improve sea floor segmentation algorithms.
- Implement novel superpixel clustering algorithms for sonar segmentation.
- Develop novel clustering indices for cluster validity measures.

Aug 2015-May 2017

Undergraduate Research Assistant, Murray State University, Murray, KY
Murray State University Non-Destructive Evaluation Lab, Murray, KY
- Used MATLAB to analyze nonlinear ultrasonic measurements.
- Presented research at conference.
- Assisted in writing conference papers.

Publications

D. Stewart, A. Zare, and J. T. Cobb, "Quantitative Evaluation Metrics for Superpixel Segmentation," in Proc. SPIE 10628, Detection and Sensing of Mines, Explosive Objects, and Obscured Targets XXIII, 2018.

G. Bunget, B. Tilmon, A. Yee, **D. Stewart**, et. al, "Novel Approach of Wavelet Analysis for Nonlinear Ultrasonic Measurements and Fatigue Assessment of Jet Engine Components," in *44th Annual Review of Progress in Quantitative Nondestructive Evaluation*, Provo, 2018

G. Bunget, A. Yee, **D. Stewart**, et. al, "Flaw Characterization through Nonlinear Ultrasonics and Wavelet Cross-Correlation Algorithms," in *44th Annual Review of Progress in Quantitative Nondestructive Evaluation*, Provo, 2018

A. Yee, **D. Stewart**, et. al, "Nonlinear Ultrasonic Measurements Based on Cross-Correlation Filtering Techniques," in *43rd Annual Review of Progress in Quantitative Nondestructive Evaluation*, Atlanta, 2017.

Teaching

June-July 2018

GRE Instructor, University of Florida, Gainesville, FL
- Taught 80 students probability methods for the GRE quantitative exam.
- Developed and graded exams to evaluate learning.

Aug 2015-May 2017

Lab Developer, Murray State University, Murray, KY
- Assist in developing new laboratory classwork.
- Design demonstrations for community outreach.

Lab Coordinator, Murray State University, Murray, KY
- Coordinate TA's for multiple labs. Plan meetings and presentations.

Aug 2014-May 2017

Lead Teaching Assistant, Murray State University, Murray, KY
- Teach and assist in laboratory classwork.

Volunteer

Aug 2017-Present

ECE Ambassador, University of Florida, Gainesville, FL
- Assisted in outreach to high school and college students.

Aug 2014-May 2017

Engineering Ambassador, Murray State University, Murray, KY
- Organized outreach events to local rural high schools.
- Recruited students for the Murray State Institute of Engineering.

Professional Affiliations

Institute of Electrical and Electronics Engineers and Society of Physics Students