Hamza Elhamdadi

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EDUCATION

PH.D. IN COMPUTER SCIENCE | *University of Massachusetts Amherst*
Expected: June 2026

MASTER OF SCIENCE IN COMPUTER SCIENCE | *University of South Florida*
Awarded: August 2021

BACHELOR OF SCIENCE IN COMPUTER SCIENCE | *University of South Florida*
Awarded: June 2020

PUBLICATIONS

AFFECTIVETDA: USING TOPOLOGICAL DATA ANALYSIS TO IMPROVE ANALYSIS AND EXPLAINABILITY IN AFFECTIVE COMPUTING *Hamza Elhamdadi, Shaun Canavan, and Paul Rosen*
IEEE Visualization and Visual Analytics Conference, 2021

RECOGNIZING EMOTION IN THE WILD USING MULTIMODAL DATA
S. Srivastava, S. Aathreya, S. Hinduja, Sk R. Jannat, H. Elhamdadi, and S. Canavan
International Conference on Multimodal Interaction, 2020

RELEVANT EXPERIENCE

DATA VISUALIZATION RESEARCH ASSISTANT | *University of Massachusetts Amherst* *Sept 2021 – Present*

TOPOLOGICAL DATA ANALYSIS RESEARCH ASSISTANT | *University of South Florida* *Jan 2019 – August 2021*

- Used the Ripser toolkit to create persistence diagrams for data sets in a Euclidean metric space
- Implemented a metric-to-non-metric dissimilarity matrix function in python
- Created the metric and non-metric persistence diagrams using ripser.py
- Calculated bottleneck distances between metric and non-metric persistence diagrams for k-values from 1 to 10
- Continuing implementation of wasserstein distances through the use of the Hera toolkit

INFORMATION TECHNOLOGY SERVICE TECHNICIAN | *University of South Florida* *June 2018 – August 2020*

NETWORKING RESEARCH ASSISTANT *January 2019 – December 2019*

SKILLS

PROGRAMMING Python, Javascript, d3.js, Html, Bootstrap, CSS, C++, C, Java, LaTeX

LANGUAGES Fluent: English, Spanish | Conversational: French, Arabic

PROJECTS

HEXAPOD ROBOT | *MECH Club at the University of South Florida* *Aug 2018 - May 2019*

- Managed the progamming team and assigned tasks to each of the team members
- Implemented principles of object-oriented programming and encapsulation
- Programmed basic movements of the robot including standing position and scuttling
- Developing algorithms for movement and balance

LEADERSHIP AND AFFILIATIONS

PI MU EPSILON | *University of South Florida* *Jun 2019 - Present*

- Inducted into the Florida USF Chapter of the Pi Mu Epsilon Honors Society for outstanding achievement in Mathematics