

OWEN MARTIN

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EDUCATION

Ph.D in Computer Science, University of Colorado Boulder August 2020 - Present
Area of Concentration: Complex Systems
Advised by Dr. Orit Peleg
GPA: 3.91

BS in Computer Science, Tufts University August 2013 - May 2017
GPA: 3.24

TEACHING EXPERIENCE

Graduate Teaching Assistant August 2020 - May 2022
University of Colorado Boulder
Courses: Data Structures

Undergraduate Teaching Assistant January 2015 - May 2017
Tufts University
Courses: Data Structures

TECHNICAL SKILLS

Programming Languages	Python, Matlab, C++, R, Processing
Frameworks	PyTorch, Keras, pandas, tidyverse, scikit-learn
Tools	Git, Docker, Azure, AzureML

PUBLICATIONS

Emergent periodicity in the collective synchronous flashes of fireflies March 2022
R. Sarfati, O. Martin, K. Joshi, S. Iyer-Biswas, O. Peleg.
In preprint, bioRxiv. In review for eLife.

PRESENTATIONS

Exploring Synchronization in Firefly-LED systems April 2022
O. Martin
Aspen Center for Physics Dynamics of Living Systems Conference

Synchronization Dynamics of Firefly-LED systems. March 2022
O. Martin, R. Sarfati, J. Hayes, O. Peleg.
APS March Meeting

Visual communication of synchronous firefly swarms in natural and virtual realities August 2021
O. Martin, R. Sarfati, J. Hayes, O. Peleg
ESI Systems Neuroscience Conference

AWARDS

Outstanding Teaching Assistant May 2022
University of Colorado Boulder

Best DataBlitz Presentation August 2021
ESI Systems Neuroscience Conference

Computer Science Department Professional Development Award May 2021
University of Colorado Boulder

OUTREACH

Computer Science Graduate Student Association Graduate Committee Liaison August 2021 - Present
University of Colorado Boulder

Outside Science, Inside Parks April 2022
National Park Service
Artificial light stimulation of *P. frontalis* fireflies in the wild

Congaree National Park Firefly Research June 2021
National Park Service
Educational video communicating the benefits of doing science in the natural habitat of model organisms

PROJECTS

High-throughput ecological monitoring of firefly populations Ongoing
O. Martin, M. Iuzzolino, DMT Nguyen, R. Sarfati, C. Nguyen, O. Peleg
Developing and training neural networks to classify firefly species from flash patterns

Network prediction from cascades of synchronized firefly flashes Ongoing
O. Martin, T. Yen, J. Hayes, M. Dresser, R. Sarfati, D.B. Larremore, O. Peleg
Algorithmically detecting edges in the visual communication network between wild fireflies from the cascade dynamics of flash signals

INDUSTRY EXPERIENCE

Software Engineer in Test NetApp Solidfire December 2018 - May 2020

Software Quality Engineer Hitachi Vantara August 2017 - October 2018