GABRIEL PASSAMANI ANDRADE

EDUCATION

University of Colorado Boulder *Fall 2018 - Present*
Ph.D. in Computer Science (Expected Spring 2023)

University of Massachusetts Amherst *Fall 2016 - Spring 2018*
M.S. in Applied Mathematics

University of Massachusetts Amherst *Fall 2012 - Spring 2016*
B.S. in Pure Mathematics
Minor in Philosophy

CURRENT RESEARCH PROJECTS

Universality of Learning Dynamics in Games Spring 2020 - Present
Advisers: Professor Rafael Frongillo and Georgios Piliouras

Graphical Production Economics Spring 2020 - Present
Adviser: Professor Rafael Frongillo

A Liquid Democratic Model of Collective Transport Spring 2019 - Present
With: Jessica Finocchiaro

Electricity Pricing Dynamics with Price Sensitive Agents Fall 2018 - Present
Advisers: Professors Rafael Frongillo and Kyri Baker

PAST RESEARCH PROJECTS

Graphical Economics with Resale Spring 2019 - Spring 2020
Adviser: Professor Rafael Frongillo

Unsupervised Event Detection in Long Horizon Time Series Data Summer 2019
Adviser: Dr. Goran Konjevod

Hierarchical Networks and Dynamics Motivated by Brains Spring 2017 - Summer 2018
Adviser: Professor Robert Kozma

Recurrent Systems for EMG-Based Hand Gesture Recognition Fall 2017 - Spring 2018
Adviser: Professor Qian-Yong Chen

Deep Learning for Classifying Breast Masses in Mammograms Fall 2016 - Spring 2017
Adviser: Professor Nathaniel Whitaker

A Matroid Generalization of Sperner's Lemma Summer 2015
Advisers: Professors Francis Su and Mutiara Sondjaja

PUBLICATIONS

- **G.P. Andrade**, M. Ruszinkó, and R. Kozma. *Graph Models of Neurodynamics to Support Oscillatory Associative Memories*. In Proceedings of the International Joint Conference on Neural Networks (2018)
- C. Amorin, **G. P. Andrade**, S. Castro-Pearson, A. K. Geraldo, B. Iles, D. Katsaros, T. Mullen, S. Nguyen, O. Spiro, and M. Sych *Math Systems for Autonomous End-to-End Detection and Diagnoses of Breast Cancer*. In UMass Amherst Department of Mathematics & Statistics Newsletter (2017)

PROGRAMMING LANGUAGES & OPERATING SYSTEMS

Python, C, C++, Bash, Java, Matlab, x86 assembly, and PDDL

Multiple Linux Distributions, OS X, and Windows

RELEVANT WORK EXPERIENCE

University of Colorado Boulder Department of Computer Science

- Research Assistant — Spring 2020

Lawrence Livermore National Labs

- Multi-Agent Systems Researcher — Summer 2020
- Complex Networks Researcher — Summer 2019

University of Colorado Boulder Department of Computer Science
Teaching Assistant

- Intro to Computational Thinking — Fall 2019
- Algorithms — Spring 2019
- Starting Computing (Computer Science 1) — Fall 2018

University of Massachusetts College of Information and Computer Sciences

- Research Assistant — Summer 2017 - Summer 2018

University of Massachusetts Department of Mathematics and Statistics

- Graduate System Administrator and IT assistant — Fall 2016 - Spring 2018
- Undergraduate Researcher — Summer 2014

Mathematical Sciences Research Institute

- Undergraduate Researcher — Summer 2015

SERVICE & LEADERSHIP

CU Boulder Algorithmic Economics Reading Group — Spring 2020 - Present
Content Distribution Manager

- Send weekly updates to email list of relevant talks and events
- Help choose papers for discussion in weekly meeting

Graduate Researchers in Data (GRiD) — Summer 2017 - Spring 2018
Chair of Operations

- Organized and Hosted workshops, talks, and Hackathons
- Helped manage funds and secure assets for the organization

ASA DataFest — Spring 2017 & 2018
Consultant

- Advised participants needing help with their projects

UMass Provost Undergraduate Research Fellowship Fall 2015 - Spring 2016
Mentor
· Helped guide the fellowship recipient in their research, class choices, etc.
· Chosen among senior undergraduates to represent the Mathematics Department

AWARDS & HONORS

· Outstanding Teaching Assistant Award in Computer Science Spring 2020
· 2^{nd} Place In Progress Research Poster, Graduate Student Research Expo Spring 2019
· Outstanding Academic Achievement Award in Mathematics & Statistics Spring 2016
· Louis Stokes Alliances for Minority Participation (LSAMP) Scholar

SELECT PRESENTATIONS

· ACM Conference on Economics and Computation, Phoenix, AR June 25th 2019
· DARPA Site Visit, Amherst, MA May 10th 2017
· AMS/MAA Joint Mathematics Meeting (JMM), Seattle, WA January 8th 2016
· NSF SFS Site Visit, Amherst, MA November 12th 2015
· SACNAS National Conference, National Park, MD October 29th 2015
· MSRI-UP Final Talk, Berkeley, CA July 24th 2015

RELEVANT GRADUATE LEVEL COURSEWORK

University of Colorado Boulder:
· Algorithmic Game Theory (CSCI 7000)
· Dynamics on Networks (APPM 5720)
· Biologically Inspired Multi-Agent Systems (CSCI 5423)
· Convex Optimization (CSCI 5254)
· Network Analysis and Modeling (CSCI 5352)
· Coordination and Control of Multi-Agent Systems (ECEN 5008)

University of Massachusetts Amherst:
· Information Theory (CS 650)
· Artificial Neural Network Dynamics Independent Study (CS 696)
· Artificial Intelligence (CS 683)
· Advanced Algorithms (CS 611)
· Numerical Analysis (Math 651)
· Cybersecurity Lecture Series (Math 591CF)
· Mathematical Statistics I & II (Stats 607 & 608)
· Dynamics, ODEs & PDEs (Math 532H & 534H)
· Real Analysis (Math 523H)

MISC. SKILLS

Fluent in English and Portuguese