Gabriel Passamani Andrade

Education

University of Colorado Boulder   Fall 2018 - Present
Ph.D. in Computer Science (Expected 2023)
Gpa : 3.443

University of Massachusetts Amherst   Fall 2016 - Spring 2018
M.S. in Applied Mathematics
Emphasis on Applications in Computer Science
Gpa : 3.710

University of Massachusetts Amherst   Fall 2012 - Spring 2016
B.S. in Mathematics
Concentration in Pure Mathematics
Minor in Philosophy
Graduated Cum Laude
Gpa : 3.675

Research Experience

University of Colorado CS Theory Group   Fall 2018 - Present
Flash Crashes in Electricity Markets with "Smart" Agents
Advisers: Professors Rafael Frongillo and Kyri Baker

Biologically Inspired Neural and Dynamical Systems Lab   Spring 2017 - Summer 2018
Hierarchical Network Structure and Dynamics Motivated by Brains
Adviser: Professor Robert Kozma

University of Massachusetts Amherst-Yearly MS Project   Fall 2017 - Spring 2018
Recurrent Systems for EMG-based Hand Gesture Recognition
Adviser: Professor Qian-Yong Chen

University of Massachusetts Amherst-Yearly MS Project   Fall 2016 - Spring 2017
Deep Neural Networks for Classifying Breast Masses From Mammograms
Adviser: Professor Nathaniel Whitaker

Mathematical Sciences Research Institute-Undergraduate Program   Summer 2015
A Matroid Generalization of Sperner's Lemma
Advisers: Professor Francis Su & Dr. Mutiara Sondjaja

University of Massachusetts Amherst - REU   Summer 2014
Numerical Methods for Computing Eigenvalues and Eigenvectors of Square Matrices
Adviser: Professor Nathaniel Whitaker

Publications

G. P. Andrade, M. Ruszinkó, and R. Kozma, "Graph Models of Neurodynamics to Support Oscillatory Associative Memories" In *International Joint Conference on Neural Networks* (2018)

Relevant Work Experience

Teaching Assistant - Algorithms   Spring 2019
University of Colorado Boulder Department of Computer Science

Teaching Assistant - Starting Computing (Computer Science 1)   Fall 2018
University of Colorado Boulder Department of Computer Science

Graduate System Administrator and IT assistant   Fall 2016 - Spring 2018
University of Massachusetts Department of Mathematics and Statistics

Peer Undergraduate Adviser   Fall 2015
University of Massachusetts Department of Mathematics and Statistics

Teaching Assistant - Calculus I & II for Life and Social Sciences   Fall 2014
University of Massachusetts Department of Mathematics and Statistics

Programming Languages & Operating Systems

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

Multiple Linux Distributions, OS X, and Windows

Service and Leadership

Graduate Researchers in Data (GRiD)   Summer 2017 - Spring 2018
Co-Chair of Operations
-Organize and Host workshops, talks, and Hackathons
-Help manage funds and secure assets for the organization

ASA DataFest   Spring 2017 & 2018
Consultant
-Advised participants needing help with their project

University of Massachusetts 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

University of Massachusetts Outing Club   Spring 2013 - Spring 2016
Hiking Leader
-Organized and led hikes throughout New England
-Received multiple certifications related to wilderness survival and first aide

Awards, Honors, Grants

Outstanding Academic Achievement Award in Mathematics & Statistics   Spring 2016

Dean's List Six Semesters

Louis Stokes Alliances for Minority Participation (LSAMP) Scholar

Select Presentations

DARPA Site Visit, Amherst, MA   May 10th 2016

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

REU Mini-Conference, New Haven, CT   July 25th 2014

Relevant Graduate Level Coursework

University of Colorado Boulder:
- -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